
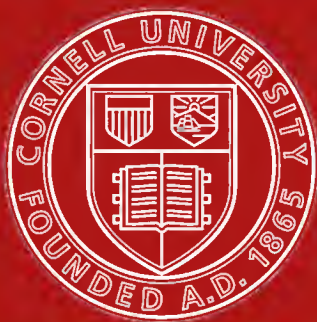


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Brought from the Lords, 4 July 1851.

R E P O R T

AND

MINUTES OF EVIDENCE

TAKEN BEFORE THE

SELECT COMMITTEE OF THE HOUSE OF LORDS

APPOINTED TO CONSIDER OF

T H E B I L L,

INTITULED,

“ AN ACT further to amend the Law touching LETTERS
PATENT for INVENTIONS;”

AND ALSO OF

T H E B I L L,

INTITULED,

“ AN ACT for the further Amendment of the Law
touching LETTERS PATENT for INVENTIONS;”

AND TO REPORT THEREON TO THE HOUSE.

Session 1851.

Ordered, by The House of Commons, to be Printed,
4 July 1851.



R E P O R T.

BY THE LORDS COMMITTEES appointed a SELECT COMMITTEE to consider of the PATENT LAW AMENDMENT BILL, and of the PATENT LAW AMENDMENT (No. 2) BILL, and to Report to The House; and to whom was referred the PETITION of the LOCAL COMMITTEE and others at *Newbury*, assisting the Commissioners appointed by Her Majesty to promote the Exhibition of the Works of Industry of all Nations in 1851, respecting the PATENT LAWS; and also the PETITION of the COUNCIL of the BELFAST CHAMBER OF COMMERCE for Alteration of the said Laws :—

ORDERED TO REPORT,

THAT the Committee have met and considered the said Bills, and also the said Petitions; and have examined several Witnesses in relation thereto; and being of opinion that the provisions of the said Bills could be better carried out by framing a fresh Bill, embodying, as far as possible, the objects of each, the Committee have considered it inexpedient to proceed further with the said Bills, and have therefore prepared a Bill, uniting the objects of each, and have directed the same to be laid before your Lordships.

And the Committee have also directed the Minutes of Evidence taken before them, together with an Appendix and Index thereto, to be laid before your Lordships.

1st July 1851.

MINUTES OF EVIDENCE.

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Die Martis, 15^o Aprilis 1851.

THE EARL GRANVILLE, in the Chair.

THOMAS WEBSTER, Esquire, is called in, and examined as follows :

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

T. Webster, Esq.

15th April 1851.

1. WILL you mention to the Committee what you consider to be the principal objections to the present course of proceeding in obtaining letters patent ?

The objections which are generally urged, and in which I concur, apply to the existence of offices of no earthly use, some of which were created by Act of Parliament, expressly for the purpose of affording fees to officers : those offices occasion delay and expense, and afford no protection whatever to the patentee.

2. Will you direct your attention to the two parties interested in this matter, the one the inventor, and the other the public : even if those offices afforded no benefit to the inventor, they might possibly afford some protection to the public ; do you consider that those offices do afford protection to the public ?

None whatever ; I feel most strongly that the public require protection ; I think the patentee, if he had his business well conducted, and has proper professional advice, has ample protection ; at least, he might have ample protection, with a very little alteration of the present system ; but the public requires protection, and one of the greatest grievances which exist under the present system is, that patents are granted almost of course, except there happens to be an opposition. The existence of an opposition, in many instances, is matter of accident. The deposits may be so framed, and the business so conducted, that an opposition is very often avoided, and the public, by whom I mean other patentees and manufacturers, and others interested in the subject, though they may have used all the means which are open to them, do not get notice of the application, and have not therefore the means of preventing patents being granted for inventions, which certainly would not be granted if greater opportunities were afforded of investigating them.

3. Is it not the case that snares are laid for persons, and that they are entrapped, without knowing it, into invading patent rights of which they are ignorant ?

Constantly. The last observation of your Lordship is of very great importance, with reference to the manner of getting access to the specifications ; that opens one very large field of objection under the present system. The specifications are in three offices. All specifications enrolled since the 1st of January 1849, owing to an alteration introduced by Lord Langdale, have been enrolled in one office ; but the specifications of other existing and of expired patents, are distributed through three offices. Those that are more than 14 or 15 years old, are distributed through two offices, and there is not even an index of names. There is not, except at the Great Seal Patent Office, a list, or an index even of the patents which have been granted.

4. What are the offices in which specifications are now enrolled ?

The single office now is the Enrolment Office of the Court of Chancery. Since the 1st of January 1849, the specifications are all enrolled at the Enrolment Office of the Court of Chancery ; before that they were enrolled at the Enrolment Office, at the Petty Bag Office, and at the Rolls Chapel Office. One of the first improvements that Lord Langdale introduced, was the opening the Rolls Chapel, which is a branch of the Record Office. When the new Act passed,

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shortly after his Lordship became Master of the Rolls, the Rolls Chapel was opened, and he allowed the public to consult the specifications, on payment of one shilling, and to take extracts in pencil. The consequence was, that specifications were taken to the close offices, that is, to the Petty Bag Office and to the Enrolment Office, where the public could not consult and copy them; so that, although this was, so far as it went, a most beneficial arrangement for the public, the moment that beneficial provision was made, parties interested in increasing the expense in requiring office copies to be made, in making drawings for those office copies, and in the extensive ramifications of such interests, had such an influence with the patentees, and control over the specifications, that three-fourths of the specifications ceased to be enrolled at the Rolls Chapel, where the public would have the benefit of consulting and copying them, and were taken to the Enrolment Office and to the Petty Bag Office, at neither of which persons could copy them, or make a single extract in writing.

5. That objection was removed in 1849?

Since the 1st of January 1849 all specifications have been enrolled at the Enrolment Office. Another very important alteration was also made; Lord Langdale directed that the specifications should be kept distinct from other enrolments; whereas, at the Rolls Chapel, and at the Petty Bag Office, specifications are enrolled along with surrenders, deeds and other instruments, so that they are all mixed together. Lord Langdale ordered that the specifications should be kept distinct, so that since the 1st of January 1849 they are all at the Enrolment Office; and all disclaimers and memoranda of alterations enrolled since that day, are at the Enrolment Office, wherever the specifications may happen to be, and the public can consult them there; but no index has yet been made. There are many more alterations connected with the specifications and enrolments which ought to be made.

6. Is there not required further power to enable the Master of the Rolls to order indices to be made of previous specifications?

I will not say that the Master of the Rolls does absolutely require further power for that; but I should say that the Master of the Rolls ought to have further powers, and for this reason, it is hopeless to attempt to reform those existing offices. They have so many other things to do, and there are so many persons interested in the existing practice, that you cannot carry out a proper and efficient system, except by bringing the business to another place, and beginning a new system; I know that by practical experience. I have had my attention very much directed to patent law reform for several years, almost ever since I have been in practice, and I have tried every Attorney-general almost, and every officer, and they have all admitted that such and such things ought to be done; but there were so many persons to be consulted, and so many persons interested in maintaining the existing system, that you could not get them done. If you are to carry out a system of reform, in order to give the public what they ought to have, and to give the patentees what they ought to have, I am quite satisfied, as regards this question of the specifications, that they ought to be brought into one office, and a new system, and a very cheap system established for the purpose. To explain what I mean with respect to those old specifications, the grievance is this: every patentee is bound in law to know the existing records; that is to say, the production of a specification of a prior patent defeats the title of a party as the true and first inventor; but to those specifications he has no means of access. He could not go through all the offices, except at a very great expense; and if he did, he would not be secure that he had not missed something, and therefore parties do not attempt it. If you come to examine into the history of inventions, for example, take a subject which has been very much litigated during the last few years—the screw-propeller; it has been before the Privy Council in four or five cases, it has been before the Court of Exchequer, and before the Queen's Bench, in litigation; you will find that there have been several patents, if not for precisely the same thing, yet exceedingly near it. If you take the more extended case of paddle-wheels and improvements in steam navigation, the number of inventions which have been re-invented, simply from the fact of there not being a means of getting at the information of what has been done before, is incredible. What is wanted, is a classified index, by which a person may refer to any specification on any subject, and at once ascertain whether his invention is new or not. Only the other day,

day, a partner in one of the largest engineering establishments in the country, patented the same thing which had been done a few months before by another man; so that, in that point of view, the old specifications are a positive trap. They are of no use but to destroy property for which large sums of money have been paid, and they ought to be burnt, rather than be left as they are.

T. Webster, Esq.

15th April 1851.

7. You propose that the existing patents should be arranged and indexed?

What I should propose would be this: begin from the 1st of January 1849; let a proper system of indices be made at once with respect to those, and continue it downwards. It would take some little time to make proper indices, because it is a peculiar subject; there is no such thing existing in this country, and the American Commissioners' indices are said not to be very complete. They have not sufficient records of the state of invention, to make the kind of indices which we could make here; therefore I would suggest, that the present Master of the Rolls should begin at once, and have indices made from January 1849, and so continued down. You would then get into a good system. I would take them in periods; I would take all in the Enrolment Office before that period; then I would take all in the Rolls Chapel; and so bring them down in periods, or according to some definite plan. It would be a work of time, of course, but it might be done in a very few years; there are many private indices of persons, containing information of greater or less extent. There is a gentleman, who was examined here the other day, Professor Woodcroft; he is an inventor and a patentee, and has acted as an adviser upon patents at Manchester; he has an elaborate index, which he made for his own use and protection when at Manchester; not having access to the records, he used to collect and index all the published specifications, so that there are many *nuclei*, so to speak, of indices. But I would suggest that a good system should at once be commenced with respect to the specifications which have been brought into the office since the 1st of January 1849, and that it should be carried back as opportunity served.

8. Should you recommend that there should be several indices, or only one?

Only one; that is, one alphabetical index of names, and one analytical index of subjects. There are some matters which all patentees are agreed on, and it will be necessary for your Lordships to distinguish, in the witnesses whom you may examine, between patentees and patent agents, and manufacturers and workmen, because they have distinct interests, and you will find different views among them; but all patentees, without exception, that is 99 out of 100, are agreed upon this, that there should be one office for all applications, one office for consulting specifications, and one index. There would be no great inconvenience in leaving the specifications where they are, if you add to all an index at one place. As to whether it be expedient to bring all the specifications into one office, is a question of detail upon which I have not the means of giving any opinion. It might turn out that they are so mixed up with other records at the Rolls, that there would be a difficulty in separating them; but if there was an index at one office referring to the Petty Bag Office, to the Enrolment Office, and to the Rolls, as the case might be, you could have access to them all.

9. Without bringing all the specifications into one register?

Yes; in which there might be some difficulty.

10. You are aware that some conflict has arisen, or been supposed to arise, between the provisions of Lord Brougham's Act, 5 & 6 Will. 4, c. 83, and the new rules?

The new rules of pleading came into operation, I believe, in Easter Term 1835. By those rules you are required to place upon the record a specific defence; as, for instance, denying the want of novelty or the sufficiency of the specification, instead of the general issue, which left the defence open and perfectly at large. Lord Brougham's Act, which related to other things, passed the 10th of September 1835, provided in these terms:—"And be it enacted, that in any action brought against any person for infringing any letters patent, the defendant, on pleading thereto, shall give to the plaintiff, and in any *scire facias* to repeal such letters patent, the plaintiff shall file with his declaration a notice of any objections on which he means to rely at the trial of such action, and no objection shall be allowed to be made in behalf of such defendant or plaintiff respectively at such trial, unless he prove the objections stated in such notice."

(77.1.)

A 3

Now,

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15th April 1851.

Now, it has been said that that provision was rendered unnecessary by the new rules ; but I do not think any of the Courts have said that judicially, although some of the Judges may have said, that if sufficient attention had been paid to the fact, that the new rules providing for the mischief under the old system of pleading, that this portion of the Act would not have been necessary. I do not agree with that opinion.

11. Do you think they are both useful and necessary ?

Yes ; and I would go still further ; a practical means for diminishing the expense of litigation in patent cases, and one of the practical remedies to prevent litigation which I would suggest, would be this. I would make it necessary that the plaintiff should give particulars of the breaches upon which he meant to rely, and I would require the defendant to give particulars of his defence ; I would require the defendant to mention the books or specifications on which he meant to rely as impeaching the validity of the patent. I would not use the words " notice of objection ;" but I would require that he should furnish the particulars of the defences under his pleas. As an instance of a particular, in requiring which there could be no harm, I should require that he should point out the books, specifications and other publications. Parties are frequently advised to go into the Court of Chancery, for the purpose and with the object of learning the defendant's case. If a defendant sets up the case of want of novelty, he discloses the books and publications relied on, and the instances of user, and the plaintiff has some chance of knowing whether it is worth his while to go on or not. It is a matter of consideration, before commencing litigation on a patent, whether you should go into Chancery or not for an injunction. You cannot get an injunction unless there has been long and exclusive enjoyment of the patent, and unless there has been beneficial enjoyment also. It very rarely happens that the patent is beneficially enjoyed before half its time has expired. The number of injunctions actually granted in the first instance is very few.

12. Did not Lord Cottenham require the party to make good his right at law before he granted an injunction ?

Not always ; his Lordship's attention was particularly called to that doctrine in the case of *Stevens v. Keating*. He was said to have departed from the practice of his predecessor ; but he repudiated that idea, and pointed out instances in which he had not done it, and in that very case he continued the injunction.

13. Do you think the existing system works well with regard to pleas and notices, when the validity of a patent is to be tried ?

No ; the existing system, according to the construction which has recently been put upon this statute, does not work well ; but I think the statute should be amended, so as to make it work well.

14. Are not the pleas unnecessarily multiplied ?

Certainly they are ; I was directing my last observation to the question whether, there being these several pleas, it was expedient there should be anything like particulars of objections also ; I think there ought to be ; I think the system, if it were well carried out of requiring particulars, would be very beneficial, because the defendant would be required to give with his pleas those particulars of objections, as, for instance, the books he relies on and other things, for obtaining which the plaintiff very often goes into the Court of Chancery, knowing that he cannot get an injunction, but knowing that he may get very valuable information by so doing.

15. The great object to be aimed at is, first to have proper pleas, and then particulars under those pleas ?

Yes ; the Court of Exchequer have said, that the Act of Parliament having passed subsequently to the new rules, it must be taken that the notice of objections was intended to give more information than the pleas necessarily did ; a particular objection may be so specifically expanded on the record, that any further objection is unnecessary. In the case of a patent relating to several things, it ought not to be sufficient for a party to deny simply the novelty ; he must condescend a little more, as to the grounds on which he means to impeach the patent.

16. What, in your opinion, are the proper pleas which ought to be allowed when an action is brought for the infringement of a patent ?

The

The pleas ought rarely to be more than these: first, not guilty; that puts in issue the question of the infringement; secondly, want of novelty, which would require two pleas, that is, prior user and invention, with a plea as regards public use, and that the party was not the inventor; then the insufficiency of the specification, which is the condition upon which the patent is granted; and, lastly, a plea denying that the invention was useful, or that it was an improvement.

T. Webster, Esq.

15th April 1851.

17. Would you have a plea that the Crown had been deceived in the grant, or would you reserve that for a *scire facias*?

I do not mean to say that cases might not arise in which one or two more pleas would be necessary.

18. What other pleas do you think would be necessary in any case?

There might be a case of false suggestion, which is the same case as the Crown being deceived, but that is really involved in the question of its being no improvement; speaking generally, I do not think any more are necessary.

19. Under those pleas you would require particulars of objection?

Yes; the Court of Common Pleas have said, in earlier cases, "We will require the party to furnish the books he relies on;" Mr. Baron Alderson, also, in a recent case, has required that: the Court of Common Pleas have also said, "We will require the parties to give some information as to the locality in which the user is said to have taken place, and to give other information of that kind, so that the plaintiff may not be taken by surprise, but may avail himself either of the beneficial provision for disclaimer, or may suspend the proceeding altogether." There could be no harm in requiring that the defendant should specify what was the kind of user on which he relied, and what part of the patent had been used. As patents are now granted, they are granted for several things; and if a patent is invalid as to one of those objects, it is invalid altogether; the defendant, without there being any danger of his being limited in his defence beyond what is right, I think might be required to specify to what part of the patent he points his objection, and to give all those kinds of information which could not be tampered with.

20. Do you think that there should be in one patent a monopoly granted for various inventions?

Certainly not; but, owing to the excessive cost of patents, it has been rather winked at by the law officers of the Crown. People have felt it to be a great hardship to have to pay 300*l.* for a patent which was to be limited to one object; but one of the most beneficial things which could be introduced would be to reduce the cost, and limit the patent to one particular thing. The expense which that would save in subsequent legal proceedings is perfectly incredible; in fact I had not the least conception of it till some members of the Manchester Committee spoke so strongly as they have done on the subject, and pointed out the monstrous evils which are the consequence of the present system, and particularly of the high cost of patents.

21. Supposing those five pleas which you have now enumerated were permitted, and none others under them, you could not avail yourself of the defence which was set up in *Turner v. Winter*, namely, that the patent being good for three things, and bad for one, was void altogether?

There might be cases in which you might want to deny that it was an improvement. In the case of *Morgan v. Seaward*, which was a case of improvement in paddle-wheels and steam-engines, it was denied that the invention was an improvement in steam-engines; a verdict was found for the defendant, the patent being impeached on that ground. In the case of a patent for more inventions than one, you ought to be allowed, I think, to take that course; but in the majority of cases (and *Turner v. Winter* had that aspect upon one view of it) it would be an objection to the sufficiency of the specification, because the process as described for one class of the products failed, and therefore that would be an objection to the specification, so that you would get at it indirectly.

22. In the Bills before the Committee is there any clause which would rectify the defect in the present system of pleading on notice?

Yes; the 16th clause of Lord Brougham's Bill has a provision to that effect: this clause provides for the plaintiff giving particulars of the breaches, and for the

T. Webster, Esq.
15th April 1851.

prosecutor on a *scire facias*, and the defendant in an action, giving the particulars of the objections. If that were fairly carried out by the Courts when brought before them, it would be a most wholesome provision. With respect to the specifications, there is one further suggestion I should wish to make: according to the present practice in England, the original specifications are returned, there being a copy made on the roll; that is wholly unnecessary; it is a great additional expense, and it introduces this mischief, that the patentee is responsible for the acts of other persons. Both in Scotland and Ireland the original specification is retained, and there is no reason why it should not be so in this country, by which means the whole expense of the transcriptions upon the rolls would be unnecessary; in fact the original specification should be kept as wills are, and the public should be allowed to obtain printed or written copies only, so that there should be no possibility of the document, which is the evidence, being tampered with; no person should be allowed to consult the original document, except in the presence of an officer, or when produced in court.

23. Do you consider that a great advantage would be gained by having the whole of the proceedings, with respect to any patent to be granted, carried on in one office, instead of in several?

Yes, I do, a very great advantage; I do not know that all the proceedings could very well take place in one office; for example, you must have a reference made to some one like the Attorney-general; the granting patents as of course could never be tolerated. Some of the proceedings now are more of a private nature than of a public nature; in principle it would be important to bring all the proceedings as much as possible to one office, and that which is important now will become still more important, if the patent is to date from the day of the application, because it would then be necessary that the final step, so to speak, the sealing of the patent, should be under the control of the same officer, or rather that the application should be under the cognizance of the same officer as the final sealing is.

24. That is the Lord Chancellor?

Yes.

25. Is there any occasion for the intervention of the Privy Seal?

None whatever.

26. Is there any occasion for the sign manual?

That is a question of practice in connexion with the Great Seal.

27. Is not the Great Seal affixed to many instruments which have not either the Privy Seal or the sign manual?

I have been told not. I have understood, as a matter of practice, that the Great Seal is not affixed to any instrument without the sign manual in some stage. When I was led to inquire into that, the case of a judge's patent was referred to, and patents of that kind which pass by immediate warrant, but in those cases I am told there is a sign manual; there is no real use in the sign manual; it may be desirable to a certain extent to preserve the prestige of grants of this kind under the authority of the Crown; but there is no further use in it; it does not occasion the great delay which the Privy Seal does. If the Lord Privy Seal happens to be in Scotland, or out during the long vacation, he has to be sent after.

28. You consider that it would be a great advantage to have as few of those consecutive steps, and as few offices through which the patent should pass, as possible?

Yes, you must have some steps, and for this reason; there must be an opportunity of opposition. The temptation to fraud, and to steal the invention of another is so great, and the prize is so great in this manufacturing country, that there must be some delay between the application and the sealing, and there must be some opportunity of opposition; but having laid these down as cardinal points, namely, the giving protection from the time of the application in cases in which it is a *bonâ fide* application, and giving an opportunity for opposition where there is a *bonâ fide* ground for it, then I would reduce the stages as much as possible, and there would be no reason why the stages should not be reduced: first, there would be the application; secondly, the reference under the control of the law officers of the Crown or the Commissioners; thirdly, the sign manual,
if

if it be necessary or expedient (and I am not prepared to say that it is not, as a matter of policy), and then, fourthly, the sealing; beyond that it is wholly unnecessary to go. Every other stage creates expense, and, what is worse, it gives an opportunity for persons to commit frauds, and to do things which ought not to be done; those are all the stages which are absolutely necessary. The practical operation then would be this; there would be an opposition at the report, and an opposition at the sealing; and more than that is wholly unnecessary. What should be done as regards advertisements in the intermediate stages, for the purpose of warning the public, or whether the present system of caveats, which, as a means of publication, is very bad, should be continued, is a matter of detail which would be under the control of the Attorney-general, or, as I should rather trust, of the Commissioners. The idea of Commissioners has been a matter which has been very much discussed; most patentees have been anxious to have something in the nature of a commission; when I speak of the wishes and feelings of the patentees, I may say that I have gathered my opinions in this way; first, from numerous communications received from patentees, in answer to suggestions sent out by me in November last; and, secondly, from having attended meetings at Manchester and in London; and, thirdly, from numerous publications on the subject. There have been published and circulated twelve Recommendations, which have been pretty much the bases of the petitions which have been presented, and of the reforms which have been suggested; most of these Recommendations emanated originally from the Manchester Committee, but they have been concurred in by a large number of persons whose names I see on the same paper, and many of whom I know personally. These twelve Recommendations are the ones I refer to as having received the assent, generally, of nine-tenths of the patentees; they are as follow:

T. Webster, Esq.

15th April 1851.

RECOMMENDATIONS.

1. THE proceedings for obtaining letters patent for inventions for the United Kingdom to take place at one office in London, under the control of a Commission appointed by the Crown.

2. Provisional protection to be afforded from the time of the application for letters patent, and the letters patent, when granted, to bear date from such application, except when specially ordered otherwise.

3. A provisional specification, or outline statement, signed by the applicant, describing and ascertaining the nature of the invention, to be deposited at the time of the application; the subject of such deposit to be single, that is, to be confined to some one new manufacture, and not to include several inventions.

4. Every opponent, on giving notice of opposition, to deposit a full statement in writing of the grounds of his opposition, and a description of any invention in respect of which he opposes; such description to be retained at the Patent Office.

5. Letters patent to issue for the United Kingdom of Great Britain and Ireland (including the Channel Islands, and Isle of Man) and to consist of one, two or three instruments, at the option of the applicant, such instruments being counterparts of each other, except as to the country; but all the proceedings relative to the granting of such letters patent to take place in London.

6. The colonies, dominions and possessions abroad, not to be included in the letters patent for the United Kingdom, but to be the subject of special grant from the Crown, or local legislature.

7. The specification to be enrolled within six months from the date of the letters patent: the patentee to be allowed, upon special application, to cancel any portion of the deposit which he may have been unable to mature, or carry out into practice, in the interval of six months from the application for the grant; the deposit to be open to inspection after the enrolment of the specifications.

8. All specifications to be printed; copies on vellum to be open to the public, on payment of one shilling, at an office in London, and at the Enrolment Offices in Edinburgh and Dublin, and at convenient places in other principal towns in the United Kingdom, and in the colonies and foreign possessions; and copies to be supplied to the public at reasonable prices.

9. Chronological, alphabetical and classified indices, to all patents and specifications to be prepared, printed and open to inspection and consultation at the same places as the copies of the specifications, and to be sold to the public.

10. All monies paid in respect of the granting of letters patent for inventions, or of the enrolment of specifications, to form one fund, to be appropriated strictly to the foregoing objects,

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objects, to the maintenance of a Library and Museum, and to the promotion and encouragement of inventions.

11. The cost of letters patents for the United Kingdom and the colonies (for the term of 14 years) to be as follows:—on the application for the patent, 10 *l.*; on obtaining the patent, 10 *l.*; at the end of the third year, 40 *l.*; at the end of the seventh year, 70 *l.* All stamps and expenses on the enrolment of specifications to be abolished, or included in the above charges. In the event of the patent not being granted, no portion of the first payment to be returned; and in the event of the payments at the end of the third and seventh years not being paid, the patent to lapse.

12. The rights of foreign inventors to be preserved to them for a limited time after the publication of their inventions abroad.

29. Can you give the Committee any more information as to the different societies and bodies who have met and published their views on this subject?

Yes; what I know of those various societies and bodies is this: the earliest in point of date, I think, was the Manchester Committee; I should say, however, that there have been committees in existence for many years past, of one kind or other. In 1828 several committees were formed; and in 1829 a long inquiry took place before a Committee of the House of Commons: in 1830 Mr. Richard Roberts, of Manchester, published a pamphlet, containing many valuable suggestions; in 1830 and in 1833 other committees were formed in Manchester and London. A Committee of the Society of Arts was formed about three years ago, which has had a sort of continuous existence; since that time the greater number of the earlier members of that first committee are in the list I have just handed in. The Committee of the Society of Arts was considerably enlarged in the autumn of last year, and has issued two Reports on the rights of inventors. The committee which was formed at Manchester in the autumn of last year, of which Mr. Fairbairn is the President, has been most active; a public meeting was held in Manchester, and resolutions passed, that a memorial should be sent to the Board of Trade, embodying their recommendations; that meeting was held on the 13th December 1850. Among the names appended to the memorial, are Mr. W. Fairbairn, the eminent engineer and machinist; Mr. Richard Roberts, the inventor of the self-acting mule; Mr. Matthew Curtis, who brought out a beautiful invention for inserting the teeth or dents in cards; and Dr. Ritterbart, the inventor of improvements in connexion with the generation and application of steam. Those are the only persons I am personally acquainted with on that list. They state various objections to the present system, the tax upon the ingenuity of Englishmen, the loss of time, and the heavy expense; and suggest that there ought to be but one office at which all the proceedings should be conducted, and then they come to these specific Resolutions: "First, that there ought to be only one office to receive applications and grant patents for inventions, such patent office to be under the control of a Commissioner appointed by the Crown. Second, that the charges to inventors for obtaining letters patent should be 5 *l.*, to be paid when the patent is granted, and an annual payment of 5 *l.* each successive year during the time of the patent right, or so long as the patentee desires to retain his invention. Third, that each patent should extend to all the British dominions, and be granted for 21 years, after which time all claim for further extension should cease. Fourth, that the plans and specification should be deposited when the application for the patent is made, and the inventor's right date from that time. Fifth, that the stamp duty on specifications should be abolished. Sixth, that an authorized printed copy of all plans and specifications in full, together with lists of expired and forfeited patents, be published weekly. Seventh, that in all cases of supposed infringement, and other matters relating to disputed patent right, Her Majesty's Commissioner of Patents shall be authorized and required, on the affidavit of the party aggrieved, to issue a warrant to the Judge of the County Court of the district in which the supposed infringement or disputed right has taken place, ordering him to summon a jury, consisting of 12 persons familiar with the subject, to decide the matter in dispute, a majority of not less than three-fourths of the said jury to be decisive. Eighth, that the applicant or applicants for a patent should make a declaration that the invention is his or theirs, or that it is a communication from another person; and if it be a communication from a resident within the United Kingdom, the name of such person should be mentioned, and appear in the grant." There are several of these suggestions which, when I met the committee, I told them could not be assented to by the Legislature; for instance, a patent for 21 years was out of the question, and

and the payment of 5 *l.* at first, with an annual payment of 5 *l.*, was not expedient; that 5 *l.* would not pay for the necessary examination, and that an annual payment was very objectionable in principle; that it was a perpetual annoyance, and would enable capitalists to get a large number of patents into their hands, and that it would operate rather as an oppression to the poor man than for his benefit; also that the proposed proceedings, in cases of infringement, were not practicable. The committee were not averse to conceding these points, and, as regards the payment, to assenting to what, I believe, has now received the approval of most patentees, namely, a payment at two periods after the granting of the patent, namely, at the end of the third and seventh years respectively. That Manchester Committee was the first in order of time which took a prominent position in the present movement for the reform of the patent laws. The Committee of the Society of Arts published their first Report in December, and their second Report in January last; the views of that committee are principally these: that an inventor has a sort of inherent or natural right in his invention, and that he ought to be allowed to create legal rights in respect thereof at his own will; in fact, to obtain patents for 14 years, or even a longer period, by some simple act of registration. The principles they set out with are as follows:—“First, that inventors, designers, &c. ought not to be subjected to any other expenses than such as may be absolutely necessary to secure to them the protection of their inventions. Secondly, that the difficulties and anomalies experienced in connexion with patents should be removed. Thirdly, that the present term of copyright in design for articles of manufacture, and the protection afforded to the authors and proprietors of inventions, and of designs in arts and manufactures, are inadequate.” As regards the general principle, namely, that inventors and designers ought not to be subjected, in the first instance, to more expense than is necessary, all parties would agree in it. The only question is this, whether a successful patent is not a very legitimate subject of taxation. The grievance now is, that all the expense is incurred at the first start, when it can be least afforded, and when the inventor has been obliged to go to 350 *l.* expense in fees, &c. before he has any means of trying his invention. That being the proposition with which this committee starts, they refer to the admitted grievances of the present system, and to the Report of the Committee of the House of Commons in 1829, and to the Report of the Commission on the Privy Seal and Signet Office in 1848. Their Report contains an elaborate exposition of the grievances and abuses of the present system. The remedy they recommend is shortly this, the substitution of a simple system of registration; that is, in fact, allowing the creation of rights of this kind just at the will of the party, and that this should be conceded to the self-constituted inventor as of right. At about the close of last or the commencement of the present year, a joint committee, consisting of several members of the Manchester and Birmingham Committees, and of the first Committee of the Society of Arts, with five or six of the members of the existing Committee of the Society of Arts, and different persons in Belfast, Dublin, Edinburgh and other places, was formed, under the title of the “United Inventors’ Association.”

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30. Are the members of that society principally patentees?

I believe they are all patentees. The chairman, Mr. Brown Westhead, the member for Knaresborough, is a patentee—both an inventor and largely interested in patents, and the list contains the principal patentees of the United Kingdom. There has been a Report of a Committee of the Society for promoting the Amendment of the Law, which was printed in February of the present year. That Report points out distinctly the difficulties of the subject, and contains various suggestions, amongst others, that the payment for patents should be annual, and increasing in a sort of geometrical proportion; that is so say, 10% the first year, with an annual increase of 20 per cent., so that the charge for the seventh year would be 30%, the whole of the payments up to that time amounting to 128%; the charge for the 14th year would be 107%, and the total payments up to that time 581%; at the end of 21 years, the annual payment would be 355%, and the whole amount 2,247 *l.*, and so on; so that you might keep the patent alive till the amount became too excessive for its value, that is, till you were willing to drop it. That is a recommendation which I believe very few persons have concurred in. The manufacturers of Lancashire feel that the certainty of the determination of the right is a most important thing. I may say, that so far

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as regards the question of payment, nine-tenths of the patentees have come to this opinion, that the patent should cost a small sum, say 20*l.*; that the patent should be granted for 14 years, with the power of extension by the Privy Council, and that there should be a payment of 40*l.* at the end of the third year, which should keep it alive for four years, and a payment of 70*l.* at the end of the seventh year, which should keep it alive the next seven years. That would lead to the abandonment of patents which were not actually useful and profitable. This scheme would provide practically for the suggestions which have been made for the amendment of patents, or specifications, or for patents of additions, as they are called. Patentees say, "I do not know how my invention will answer; I ought to have the power of adding to it, and amending it." If there were periodical payments, as proposed, the operation would be this, that when a person found he had made an improvement upon a previous patent which was not answering, he would drop his former patent, and at the end of the third year would take out a patent for the old invention, in combination with the new one.

31. Do you see any objection to requiring that a patent shall be sued out within three months?

None whatever; but if the patent is to date from the day of application, this provision is of less consequence than under the present system.

32. There is a difference between the two Bills, with regard to the power of provisional registration for six months?

I do not quite understand the second Bill in that respect; I think there is some mistake, or something omitted in the clause.

33. Are there any other societies with which you are acquainted, established for the purpose of obtaining an amendment of the law of patents?

There is a body called the "Patent Law League," and another called the "National Patent Law Amendment Society;" and another, "Association of Patentees for the Protection and Regulation of Patent Property."

34. How is the Patent Law League constituted?

The provisional committee consist of about 15 persons; but I am not acquainted with any of them. The leading objects of all those societies may be summed up as follows: The reduction of the cost, one patent for the United Kingdom, and protection from the time of the application; they differ about the printing and publication of the specifications, but they are all agreed upon those three points. With respect to how their reforms are to be carried out, there is a considerable difference of opinion. You may divide the persons who are seeking for patent law reform into three classes: one class thinks that persons should be allowed to register their inventions as of course, and to create legal rights at their own pleasure; the majority of the Committee of the Society of Arts belong to this class; they seek to "extend registration to inventions generally," and for that purpose to adopt or imitate the machinery of the Registration Office for the registration of designs, being misled by the analogy which appears to exist between designs and inventions, and copyright of designs and patent right in inventions. These, however, are very distinct things, and require to be dealt with in a different manner. Reference is continually made by this class of persons to literary copyright, or copyright of designs; and those who found their opinions upon analogies from copyright, think that a person should be allowed to obtain vested legal rights in mechanical or manufacturing operations as he pleases, and in respect of anything he may think fit to claim. There is another class who think that there should be no protection on patents at all, who think that you might leave everything to the power of capital, and to the means of forestalling the market, so to speak, which the power of capital would give; but this would involve all the mischief of secret practices, and be a departure from the existing practice in every country, and an entire misapplication of what may be termed the free-trade principle, that existing and established trade and manufactures are prejudiced by protection.

35. Is there any patent law in Switzerland?

I do not know; I am quite sure of this, if any person who may be disposed to think that patents should be done away with, comes to examine the way in which particular manufactures have been built up by reason of the large amount of capital which has been thrown into them, in reliance upon the return to be obtained

obtained by means of the protection given for a short time, he will be very much surprised. In some of the most successful inventions of the present time, it will be found that the first patent effected little ; but in attempting to work this out, further improvements were made, and fresh patents obtained, so that by reason of the protection which has been given to different stages of the invention, and the quantity of capital which has therefore been laid out upon it, the invention has been perfected, and introduced and made useful to the public, in a time within which it never could have been done but for the money which has been employed upon it, in reliance upon the protection of the patent. The whole of our experience of cases before the Privy Council is a proof of that, and leads to the conclusion, that many inventions would never have been introduced at all without such protection.

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36. Is not it quite proverbial throughout all the manufacturing districts, that such is the continuous improvement which takes place in machinery, that it becomes more economical and advantageous to substitute new machinery every seven years than to continue the old machinery ?

I should not say that I am quite cognizant of the fact, but I think it is very likely.

37. Can you state at all what proportion of the inventions constituting the progressive improvement of the Lancashire machinery has been patented ?

A very large proportion.

38. Do you speak confidently on that subject ; are you able to say that of the improvements which are made day by day, and week by week, and which constitute the continuous progressive improvement of the machinery of Lancashire, a large proportion has been patented ?

I should think so ; but I should prefer that on such a subject the Committee should apply to persons like Mr. Curtis, or Mr. Fairbairn, or Mr. Roberts, or Mr. Fothergill of Manchester, or Professors Cowper and Woodcraft, who know those things intimately ; I can only speak generally ; but my impression is, that a very large number are patented ; my observation was rather directed to the creation of certain new trades and manufactures ; as, for instance, the caoutchouc, the gutta percha and the composite candle trade, and some other instances which have been more prominently before me, in which new trades have been built up, created and established within a very short period, by reason of the protection for a limited time which the patent gave during what may be called the infancy of the manufacture.

39. The question arose out of your former observation, that if the history of the important trades of this country were carefully examined, it would be found that they had been built up upon a multiplied system of patents ; that is a very different thing from the fact of a great start at any particular moment being made in any one of those trades in consequence of some particularly important patent ; the cotton machinery of Lancashire has advanced to its present perfection by a continuance of almost daily or weekly improvements, each improvement hardly capable of being stated in its separate form, but still constituting a continuous progressive improvement : how far are you able to substantiate your previous statements, by showing that those progressive improvements have, in the majority of instances, been patented ?

My impression is, that the majority of these progressive improvements have been patented. I have heard persons of more experience than myself in details of this kind, say that they have been ; I have named persons in Manchester and London who could tell your Lordships exactly how the case is, and I can refer to one or two instances within my own knowledge to support the general view which I have stated ; for instance, we had a litigation only the other day, at Liverpool, for an improvement in looms ; the invention consisting in an improved means of stopping the loom, whereby they could drive the loom from 1 or 120 picks a minute, instead of 60 or 80 picks ; that might appear a trifling thing in itself, but I know it made a great change to many establishments : I know of another instance of a patent which was also litigated, where the improvement consisted in giving a sort of eccentric motion to the can in which the cotton sliver was received or laid on leaving the drawing rollers, whereby no two slivers were laid parallel one with the other, but each of them was laid at a very small angle, an infinitesimally small angle, with the other, so that you have every sliver laid in an

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eccentric coil, and, there being no parallelism between them, they come off from each other without difficulty. Looking to the number of patents for apparently small things within my own knowledge, I should be disposed to think that you would find that a very large proportion of the progressive improvement which has gone on from the time of Arkwright and Roberts has been the subject of patents. At the Privy Council there have been applications for extensions of the patents for Roberts's mule, Smith's mule and Potter's mule ; those are instances of a progressive improvement in mules.

40. Do you know how many patents for improvement in cotton machinery are granted annually ?

A great number ; I should think at least one every week in some way connected with the cotton manufactures.

41. Do you know that to be the case ?

No, there is no index by which it can be ascertained.

42. Do you think that those improvements would not have taken place except for the patent ; would not it be a great object for the manufacturer to have the use of the improvement to himself for a few weeks or months ?

He would not be able to keep it to himself for a single week, except by resorting to secret practices, and other proceedings highly objectionable.

43. Then the public would have the advantage of that invention without paying a tax for it ?

Yes, and the inventor would be deprived of the fruits of his ingenuity. With respect to improvements which have relation to an established trade, as, for instance, the cotton trade, where an improvement is introduced like that of the loom, to which I have referred, the same necessity for protection does not exist as in new trades and manufactures. But many of those improvements in an established trade are made by workmen ; and if you do not give some legal protection to the workman, he would never get a sufficient reward for his ingenuity ; it would be taken advantage of by the master, and absorbed by the capitalist, while the workman, the inventor, would get nothing. It must be remembered also, that you cannot legislate for specific cases. You must either allow a patent to be given in every case, or you must have no patent at all ; you cannot say that is an established trade, and though it is highly desirable that a self-acting mule should be improved, there shall be no patent for such improvement ; you must have one general system for all inventions.

44. The very fact that a patent was introduced for the invention of doubling the motion of the loom would be a considerable interference with all other manufacturers who are from day to day making improvements in their machinery ?

It would be no interference with their improvements ; a prior invention does not interfere with a subsequent invention ; the one is the foundation of the other. In the case of the loom, the inventor had been at work at it for years ; it was a great desideratum. The stopping of the loom instanter when the shuttle traps, or is stopped in its course, or when the weft thread breaks, had been the subject of many patents, but this man, by a very simple contrivance, accomplished the purpose perfectly. The shuttle passes through with the weft ; if it happens to stop in its course, and the slay comes against it, there is a danger of destroying the fabric already woven. Therefore, it became essential that some means should be devised of stopping the progress of the loom when the shuttle stops in its course. This man conceived the idea of transferring the momentum of the slay to the break on the fly-wheel, and the stoppage was instantaneous. I know this had long been a desideratum ; this man had been at work upon it for years, and he succeeded. What was the result ? Why, that the manufacturer paid him 5s. a loom for it. There was some litigation about it, but he established his patent.

45. The advantage of the patent in that case would be as a reward to the man for his labour and ingenuity, and not as yielding any benefit to the public ; with respect to gutta percha, of which you spoke just now, was not that more in the nature of a lucky discovery than the result of a scientific and laborious pursuit ?

No doubt many discoveries are lucky accidents, but you cannot estimate that ; you must look at the result ; is it new, and is it beneficial ? How great may have been

been the amount of pains bestowed is not a matter which you can examine into in the first instance. It is a matter which the Privy Council examines when an extension is applied for; but you cannot do that in the first instance. A man takes out a patent upon his own risk; he says, "This is a new thing, and will be useful, and by means of a patent I shall obtain an advantage from it." The public are also benefited by the diminished cost or improved quality of the article of manufacture.

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46. Upon what principle do you conceive letters patent to rest; is it the principle of just remuneration to the individual inventor, or the principle of promoting the public interest?

Upon both; the principle, as recognized by the common law of this realm, was this: he who shall introduce a new trade into the realm, or an invention tending to the furtherance of a trade, shall have a monopoly patent for a reasonable time, till the public shall learn the same. The means of instructing the public, under the old common law, was by requiring the patentee to take apprentices. That was not a very practical mode, and it has been entirely superseded by the modern rule of the specification. You require of the party, as a consideration for the monopoly he enjoys, that he shall give the public a distinct account of his invention in the nature of a specification, so that they may have possession and advantage of it when the patent expires.

47. Is not the disclosure of the secret the main consideration of the patent?

Yes, I apprehend it is; it is in the nature of a contract between him and the public: the State says, in consideration of your disclosing the secret, and not practising it in secret, but permitting the public to have the enjoyment of it, when you like to give up your patent, or when your patent expires, you shall have the exclusive enjoyment of it for a reasonable time.

48. Is not it often very difficult, or next to impossible, to say, truthfully and justly, that any single person is the exclusive inventor of a thing; is not it generally the case, that one person suggests the first conception; a second advances that conception, and gives it more of a practical form; a third takes it up, and perfects it by bringing more mechanical ingenuity to bear upon it; the labours of the three being aided and brought to bear by means of the intervention of a person of enterprise and capital, and thus they all four bring out a really practical and useful invention; would not it be exceedingly difficult to say that the merit of that invention belonged exclusively to any one of the four?

I think that the proposition of your Lordship is true in one view of it, and false in another; it is true in this view: if you look at the history of a particular improvement, say, for instance, the screw-propeller, through a series of years, it will turn out that A. began, B. followed, C. added something, and D. perfected it; therefore that proposition is true, taking the invention over a series of years, and with reference to the first inception of that invention and its perfection; each of those men added something to the existing or preceding state of invention; A. invented it, B. added something to it, C. added his share, and so on. There is another class of cases also as to which your Lordship's proposition will be true, where a person conceives an idea, and says to a workman, "Can you carry that out?" That was the case in Fourdrinier's machine for making endless paper; in that case the person to whom the idea suggested itself, employed Mr. Donkin, one of the most celebrated machinists of the day; the inventor may be supposed to have said, "I have conceived the idea of making paper in endless sheets if you can give me machinery, moving webs of wire cause at a uniform velocity;" that was his idea, and he employed Mr. Donkin to carry it out, and the law said, he being the person who had the merit of suggesting and conceiving the system, was the true inventor. He only paid Mr. Donkin for applying his existing knowledge in executing the invention; in that case it was true that the invention was carried out by another person, but it was carried out at the suggestion, and with the funds, and of course at the instigation of the original inventor.

49. In the case you have put and illustrated by the first four letters of the alphabet, connected with the screw-propeller, to which of the four would you
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concede the patent to be justly due; or would you give it to them all successively?

There have been successive patents to each of the parties; this patent coming into litigation, the first patentee obtained a verdict, on the ground that the other patents were improvements upon his, and could not be used without a license from him; in the result they all combined, and divided the profits; I should conceive that each of them had a large share of merit. A question of law arose with regard to it, and certainly it is one of the difficult questions incident to this subject, where you have a person who was the first in a series like that, but who does not present his invention in the most complete practical form, what extent of merit is due to him.

50. Is not that precisely a case in which the supposition that by granting a patent to A., you create an impediment and obstruction to the proceedings of B., is illustrated and proved by your own statement, that those parties have been obliged to combine together for the purpose of making their united labours efficient?

No, I think not; B. would not have made his improvement but for the protection which he would receive; in like manner C. would not have brought out his improvement but for the protection which he knew he should get; and so as to the improvement of D. The experiments which each of those parties made must have been very numerous, and the expense which they incurred very considerable.

51. Upon what ground do you make the assumption that you would not have had those improvements, except for the protection; is not that begging the whole question?

I think not, because this was not the case of an established trade at all; it was a case requiring numerous experiments to be made, and in which it was necessary to proceed step by step. What inducement would the parties have had? what motive would there have been to induce A. to create this so-called impediment, or to lead B. to make improvements thereon, unless each knew that he should get something by doing so? The invention, when sufficiently improved, would have been taken up by some great engineer or shipbuilder, who would have reaped the whole of the benefit, and the inventor would, in the end, have obtained nothing.

52. Did not you state that there have been many cases, arising from imperfect registration, in which patents already taken out have been re-patented by another person, who has invented the same thing in entire ignorance of the first invention?

Yes; that arises from the imperfect access which can be obtained to the existing specifications.

53. Is not that evidence that the same thing is liable to be very often invented by many different people?

No doubt it is. You may divide inventors and discoverers pretty much into two classes: persons who are concerned in manufactures, and whose business and interest it is to improve those manufactures by economising material and labour; and speculative people, or men of science. The former class are very generally led to an invention by some want having arisen; that is the key to a great number of inventions. Some want arises: they exert themselves to supply it; considerable expenses may frequently be incurred in experiments; these can only be recovered by securing the protection of the invention for a limited time. Inventions are often made, and remain useless until some new state of things arises. Take, for example, the case of the electric telegraph; the requirements of the Blackwall Railway rendered a communication of that kind essential; so that the introduction and wants of railways led to the establishment of the electric telegraph, in consequence of the want which was created of communicating from end to end of the railway.

54. Is not the statement made in your last answer a strong confirmation of the idea that the wants of the public, combined with various other necessary circumstances as to the state of human knowledge and human invention, tend very powerfully, in a manner not very easily described, but perfectly intelligible, to secure to the public discoveries at different periods; and is not that further confirmed

confirmed by the fact that there is such a tendency to spontaneity, or a rapid succession of the same discoveries?

I think not, because a man would have had no motive to make discoveries; a want might be felt, but there would be no sufficient motive to exertion in order to supply it. All experience shows, that after having made an invention, however successful it may be, great expenses are necessarily incurred in bringing it into use. I am satisfied that it is only the knowledge that if a man brings out a successful invention, he will have such protection given to him as may be the means of his recovering not only the expenses to which he has been put, but some reward for his ingenuity, which affords the stimulus that leads to inventions being made. Inventing, and the introduction of patented inventions, become, in fact, a sort of trade or business. In consequence of the knowledge that protection will be afforded, scientific people are induced to take to invention as a pursuit and means of livelihood. The case in that respect is quite analogous to copyright and to other things; persons are induced to write books, and employ themselves in that way, from the knowledge that they can make it a business, and obtain a profit by doing so.

55. Have you any means of stating what proportion there is between the inventions which are made by purely scientific people, sitting down for the purpose expressly of inventing a thing, and those which are suggested by persons engaged in their own particular businesses, and endeavouring to apply some ingenious invention to meet an actual want which they are labouring under?

The number of inventions brought out by purely scientific people I believe to be very few, and for this reason: purely scientific people want practical knowledge to enable them to carry out their own ideas; the mass of inventions, I have no doubt, are made by workmen, or persons of skill and science engaged in some actual manufacture. Perhaps the best illustration of that would be to take the case of the screw propeller; that is a distinct thing from an established trade; each of the persons who embarked in that was in advance of the age, so to speak; he wanted to do something, the like of which had not been done before. That species of invention must necessarily fall into the hands of scientific men. If you were to inquire who those inventors were, you would find that some of them were scientific persons, and others were persons engaged in kindred pursuits.

56. What was the date of Watt's first patent?
Seventeen hundred and seventy-five.

57. Have not there been very considerable changes and improvements made in the steam-engine since that?

Yes, a great number; a great number of patents have been taken out for the improvement of the steam-engine; improvements regulating the valves, and in working expansively; in the way in which the steam is cut off, as it is called, that is to say, in arrangements for arresting the ingress of the steam.

58. Have there been 20 patents granted since that time for those improvements?

I dare say there have been 20 patents a year for improvements in the steam-engine.

59. Have many of those improvements been made by workmen?

A great number of improvements made by workmen become patented by the masters; it is hopeless for a workman to take out a patent.

60. Do you not conceive that of the improvements made in the steam-engine, a very large proportion have been made by persons in one form or other connected with the working of steam-engines, either as workmen, foremen of works, or proprietors, as distinguished from mere philosophical improvements made by men of science, unconnected with the practical operation of the steam-engine?

Yes, in all established machines, and in all established businesses and trades, I have no doubt the mass of the improvements are made by workmen, that is, persons engaged in the actual working of them; for instance, in the case of the loom to which I have referred, the improvement was made by a workman; he foresaw the mischief which arose from beating up when the shuttle trapped. In an established manufacture, improvement must consist in small details; the workman is better educated as to, or has more experience of, the wants of the machine than any other person.

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61. Is not it fair to consider that those inventions would in all probability have been made, without any reference to the direct pecuniary reward which the patent offered; are they not the natural emanations of the minds of the persons who are working upon those subjects, differing, therefore, from the case of the discovery of the safety-lamp by Sir Humphrey Davy, where the problem was distinctly presented to him to find that invention, and he found it; his attention would not have been turned to it, except as it was connected with some pecuniary reward or scientific honour; but are not those inventions made by persons who are continually working upon those machines, as the natural result of their daily observations and daily necessities, without the aid of any artificial stimulus?

No doubt that may be the case with a large number of them; but the hope of a pecuniary reward is a stimulus. And the question occurs, is it just, where a man has brought out such an invention, that he should not have some reward. I have no doubt that a great number of inventions would not be introduced but for the hope of rewards. The certainty of reward induces people to take to invention as a business. A workman knows that if he effects an improvement of a machine, if he has a liberal master, he will get well rewarded for it, and therefore, in those cases improvements might be made; but in the majority of cases the inventor would be in uncertainty, and he would know, that while the reward he would get might be exceedingly inadequate, the advantage his master would get would be very great, and he would leave things to their course.

62. You believe that to be really the case, owing to the present state of the law, that the workman believes that the profit of any invention he makes must pass into the hands of his master?

Yes, I do. Exceptions occur; but a workman has not generally the means of making terms with his master as to inventions; he has no protection without a patent, and a communication of the invention may defeat the right to a patent.

63. Are not you aware that Mr. Watt made no profit whatever by his original improvement of the steam-engine?

None.

64. Are you aware that if his patent had not been extended for 28 years, he would have been rather injured than benefited by his invention?

There is no doubt of it.

65. The first 14 years yielded no benefit to him?

That has been the case with many patents of that class.

66. Do you consider, that having one patent for the three kingdoms would be an improvement?

I consider that that is essential, and for this reason, that if there has been a user in any one part of the three kingdoms, it vitiates the patent in the others; therefore, unless you make the patent bear the same date in all, you have questions continually arising about priority of rights. Looking to the present state of the intercommunications between the three countries, it is wholly unnecessary to have three patents; if there was one patent, and then a simple certificate of registration, in the same way that there is with respect to literary copyrights, all the advantages of three distinct patents, without any of the disadvantages, would be obtained; the patent for one country might be sold, and legal proceedings go on as if there were distinct grants.

67. Do you consider that that ought to be extended to the colonies?

I think not; I should be disposed to exclude the colonies altogether; a great many difficult questions have arisen respecting colonial patents, and I think the question as to the colonies should be left to the local legislatures entirely.

68. What do you consider would be the effect of preventing a patent from being granted for the importation of a foreign invention?

I think it would be injurious to this country; I know, and your Lordship must know, from cases at the Privy Council, that several patents have been imported from abroad which could not be forced into use, though they were actually in use abroad, without the application of English capital and English enterprise.

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The use abroad does generally assist in its introduction here ; sometimes rather throws discredit upon the invention.

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69. Supposing the main consideration for the grant of a monopoly in an invention to be the disclosure of a secret which otherwise the public would not be benefited by, do not you consider that this secret, being already disclosed abroad, having become well known by means of various publications, and possibly having been patented abroad, the grant of a monopoly in this country excludes the public from the use of it without their having any consideration in return ?

There is something in that objection ; but having regard to the fact, that the expenditure of capital is in many cases absolutely more important, so to speak, than the invention, I think it is very doubtful whether a patent ought not to be granted in this country, although the invention be well known abroad ; it is a question of considerable difficulty, and I think an intermediate course might be adopted. I think the rights of the original inventor abroad should be preserved, and he might be allowed to take out a patent here, but I think a stranger should not ; the assignee, or purchaser from a foreign inventor, might be allowed to have a patent ; but if the invention were already in use abroad, I would not allow anybody, so to speak, to pick it up, and appropriate the invention exclusively.

70. Are you aware of any secret inventions, that is to say, inventions which have not been made public abroad, having been imported into this country and patented here, so as to prevent the possibility, if the same user had existed here of obtaining a patent ?

I am not aware of it ; it is very difficult to get information upon a case of that kind.

71. Generally speaking, have those inventions for which patents have been granted here, been publicly used abroad ?

I should say, generally speaking, they have not ; the value of patent property in this country is known so well, that inventors generally contrive to obtain a patent in England before the invention has been disclosed abroad ; I believe that that has been the general rule, though there have been instances to the contrary ; in the case of the daguerreotype, it had been purchased by the French Government before the patent was taken out in this country. Many of our manufactures are much indebted to foreign inventions improved by English skill ; the Jacquard loom, for instance, is of foreign origin.

72. Do you consider that there are many instances in which the ordinary consideration would apply of a monopoly granted to the importer, in this case the *quasi* inventor, because of the benefit derived by the public here from the disclosure ?

I do not think there are a great number of instances of that kind, that is, of an importer having no connexion with the inventor.

73. Are inventions frequently made abroad, and made public in foreign publications ?

Yes ; the system of publication is much more perfect abroad ; all specifications are printed in France after a certain time ; but specifications abroad are kept secret for some little time, I think.

74. You consider that the main purpose to be answered by putting the importer of a foreign invention not before used in this country, upon the footing of an inventor here of that which has not been previously used, is not the disclosure at the end of the term of the monopoly, but the inducing persons to apply capital to the purpose of having the invention used here ?

I think so ; in many cases the application of capital is essential to getting an invention introduced at all ; it requires a certain amount of advertisement to force an invention upon the public ; the public will not take to it till it has been tried, and demonstrated before their eyes.

75. Are there not, in that respect, two kinds of patents, the one a new mode of doing a thing in common use, and the other the new use of a thing, whether common or uncommon ?

Yes, you may distinguish patents in that way.

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76. Is not a patent coming within the first of those classes much more likely to succeed in a short time than the second?

Yes, I think so.

77. As the law now stands, is not the party who has invented the first, much more likely to have his invention pirated than the one who has invented the second?

Much more.

78. And, consequently, to be deprived of his profits during the period of the monopoly?

Yes.

79. In the second case he is much less likely to have any benefit at all during the first 14 years?

Much less likely.

80. Have not the increased means of communication between different countries, and the great facility of intercourse, particularly in Europe, put the question in a very different light from that in which it was in the time of James the First?

I think so. Your Lordships will find, that the last recommendation of the Inventors' Association refers to the preservation of the rights of real inventors for a limited time; that pointed particularly to the case of an invention well known abroad being made the subject of a patent here.

81. It is proposed that there should be a preliminary examination, either rendered absolutely necessary, or at the desire of the Attorney-general, by a board, consisting, say, of a chemist, a mechanist, and some other person, probably the Secretary of the Commissioners; what do you consider would be the operation of that examination?

I think the operation would be most beneficial; I am sure that it would stop a great many patents. The difficulty of the present system is this; the occupations of the law officers are so great, that even if they were adequately informed upon every subject, they have not time to enter into it. Therefore, if you had a board of that kind who could report to the Attorney-general upon the facts of each case, finding, as it were, the facts of the case, leaving the law officer, who, as a single judge is the best you can have to deal with a case of that kind, to decide ultimately upon the granting of the patent, it would be a very advantageous course. He would have the facts found for him; either party would take exceptions, as it were, to the facts so found; and if a party were dissatisfied in cases in which the Attorney-general reported in favour of the patent, there might be an appeal to the Lord Chancellor.

82. Do you not apprehend that that examination might degenerate into a mere form?

I do not think it would. I think experience in America shows that that is not the case; there you have an appeal of that kind.

83. Suppose the examination were made, not at the option of the Attorney-general, but as a matter of course, would not, in that case, the tendency be to degenerate into a mere form?

I do not think it would, because the examiners should be entirely under the control of the Commissioners or of the Attorney-general, and they should be required to report upon each case. The check upon its degenerating into a form, would be the danger of their giving patents for old inventions. It should be compulsory upon them to have the indices properly searched, and to consider, to a certain extent, the character of the invention. Their own credit would be at stake if they reported in favour of inventions which were old or useless. The examiners ought not to have the power of stopping an invention; they ought only to be required to report upon the facts connected with it, for the information of the law officers of the Crown.

84. With their opinion?

Yes, but it ought to be in the control of the law officers of the Crown; and if a patent were granted, there should be an appeal to the Chancellor.

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85. You would have no appeal in case of a refusal?

No; looking to the inclination which there would be to grant the patent, I think no appeal would be necessary in cases of refusal.

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86. Supposing the board to report in favour of granting a patent, and the Attorney-general, notwithstanding that opinion, to refuse, do you think there ought to be an appeal to the Lord Chancellor?

I think not; such an event would only happen in a case of conflict between two claimants; the refusal of the patent would be upon facts, for the decision of which you cannot have a better officer than the Attorney or Solicitor-general; their inclination rather is to grant patents, and it is now made a matter of complaint that they grant too freely.

87. Do you consider that such a process would degenerate into an obstruction to the grant of letters patent?

I think it would not; the applicants would take care of that; I think it would be a wholesome check upon the granting of patents for useless inventions, and one which would be absolutely necessary, if the cost of patents be considerably reduced; it could not be made use of as an obstructive, so long as the proceedings are in the control of the Attorney-general or of the Commissioners. If it were found that patents were reported against when they ought not to be, that would be matter of specific appeal to the Attorney-general; and, I think, both the opponent and the applicant ought to have copies of those reports, that they might take exceptions to the facts upon which the judgment of the examiners was founded.

88. Do you consider that this board ought to keep a minute of the whole of the evidence brought before them?

Certainly.

89. That they ought not merely to examine the patentee and the person entering a caveat and opposing the patent, but that they ought to allow evidence to be brought before them by those parties?

Yes, precisely as the Attorney-general is supposed to do, and does now in cases of opposed patents; there is now an opportunity given for opposition. The Attorney-general is supposed to examine into the merits of the case, but he has neither the time nor the means of doing it effectually. It would be an improvement, in fact, upon the American system; that has been found to work very well in the main. There are certain objections to it which, I think, this plan will obviate. There was no appeal in America at one time; there is now an appeal to the chief judge of the district court. I would make the Attorney or Solicitor-general the appeal in this country, with an ultimate appeal from him to the Lord Chancellor. There is one further observation I should wish to make upon this Commission; I said there had been some difference of opinion among patentees as to the constitution of the Commission; but when it has been explained to them that the object of the Commission, as proposed to be constituted, was to bring together all those persons who have to deal with the granting of patents, for the purpose of making rules, it has generally met with their entire concurrence. At present, when any application is made for an alteration in the practice, it will generally turn out that the Attorney-general, the Master of the Rolls and the Lord Chancellor must all be consulted. There is no means of bringing those persons together, and, therefore, complaints and abuses go unremedied and uncorrected; whereas, could you bring together, in one board, all the persons in the three countries who have to deal with the granting of patents, particular abuses would be corrected, and rules and regulations of a beneficial nature might be laid down.

90. Do you consider the printing and publication of specifications, disclaimers, and all matters connected with the specification and patent, would be beneficial?

I think they ought to be printed and published. An objection has been made, that it would be a very expensive thing; but when you consider that there ought to be an enrolment in Edinburgh, and in Scotland, and all the principal towns, and also in the colonies, and that, as a general rule, wherever you require more than half a dozen copies, it becomes cheaper to print; I am sure printing would be a saving in the long run. There would be a considerable sale of the printed

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specifications, because they are wanted in judicial proceedings and in other cases, and by the patentees, for the purpose of giving information as to their invention.

91. Do you think the present law, with respect to disclaimers, requires alteration?

I think it requires a little alteration, in respect of declaring, that the absence of the joindure of persons having an interest, shall not vitiate the disclaimer, if the Attorney-general approves of it. I understand the principle of the Act to have been this, that if the Attorney-general approves of the disclaimer, his fiat shall be conclusive as regards the parties. The validity of the disclaimer may be disputed as regards its effect upon the patent, and the specification in introducing the exclusive right; but if the Attorney-general approves the disclaimer, it ought to be final as regards all parties, because persons having an interest in the patent, can protect themselves by a caveat. There has been some little doubt upon the construction of the statute, and to that extent I think it requires correction. With respect to fees, I observe that by both the Bills all fees are to be paid at the Great Seal Patent Office, thus recognizing the principle of having all the proceedings conducted at one office; but Bill No. 2 still keeps alive the Home Office as the place at which the application is to be made, which is wholly unnecessary, and of no use whatever.

92. Except the provision respecting the colonies and foreign inventions, and the introduction of the Home Office, is there any material difference between the two Bills?

I think there is not; I think the two Bills are both founded upon the same recommendations which have been referred to; there is hardly any difference between them. There are clauses in one which might very properly be imported into the other; and there are some other clauses which ought to be added. I think there ought to be clauses added for a register of patents and for a register of proprietors, and for a registration of assignments and a registration of transfers and licences, something analogous to the registrations which can be made in copyrights of literature at Stationers' Hall. The two Bills are really in principle the same.

93. Do you consider the proposal in the second Bill for laying the rules before Parliament an improvement?

Yes.

94. And the provision requiring a statement describing the nature of the invention?

Yes, that is an improvement. I would import from the Bill No. 1, a provision, that the petition, with such statement, should in all cases be left at the Great Seal Patent Office, instead of at the Home Office, because then you would have the commencement of the proceedings and their termination at the same office; if you go to the Home Office, it would be merely *in transitu* to get the sign manual, and this in practice occasions no delay.

95. The 13th clause of the second Bill requires, first, a fee upon the deposit of the specification, and then another fee upon a limited monopoly being granted during six months?

I do not understand the clause; the meaning appears to be, that you are to have a limited protection for six months for 2*l.*, and then you are to have further protection for six months for 20*l.*; then you would only get a protection for 12 months, at a cost of 22*l.*; the fees on the patent would be all extra; whereas, it is far better that you should have one patent for three years for 20*l.* or 30*l.*, which has been proposed; it is a new clause in point of principle, and also in point of form.

96. Is not this the benefit which would be given by that clause, that without the deposit of more than 2*l.* a poor man may go to a patent agent, and through his agency get the intervention of a person of capital to help him in bringing forward his invention?

Yes, I think to that extent it is a good principle; if they wish to extend the principle of it for a longer period at a small payment, I have no objection to that; but I do not see why a man should pay 22*l.* for provisional protection for only

only 12 months ; besides, 12 months is of very little use for the purpose of testing an invention ; it requires a longer time than that ; three years is the shortest time with respect to the great majority of inventions in which you can do any good.

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97. Is there any provision in the Bill No. 2 for obtaining a patent for three years ?

I think not, except that the patent is to be for 14 years, subject to a payment at the end of three and seven years.

98. Do you consider Bill No. 1, or Bill No. 2, better calculated to give satisfaction to the parties who are anxious for the reform of the law ?

There are many points in which they agree, and a few points in which they differ ; I think some of the clauses of the one will be preferred to the clauses of the other ; the two Bills might be put together, and, with a few additional clauses, would make a Bill, with which the majority of inventors would be very well satisfied ; I think it very doubtful to which the preference would be generally given as they stand ; some provisions in each would be objected to by various parties.

99. Do you object to that portion of the 13th section which requires a deposit of 2*l.* in the first instance, in order to guarantee to the inventor the enjoyment of his patent ?

No, I do not object to giving a person the principle of protection for the smallest possible amount, but I do not understand the policy of a man's paying 2*l.* for protection during one six months, and then 20*l.* for another six months, but I think his patent ought to be given him for 20*l.* or 30*l.* altogether.

100. Do you think it desirable that protection should be given for a certain time under a provisional patent, in order to enable the poor man to make a bargain with the capitalist ?

Yes ; I think the most important feature of all is, to enable the workman to make his bargain with the capitalist ; unless he can go and get protection at a cheap rate, he will not be on an equal footing.

101. What time do you think would be sufficient for that special purpose ?

I think six months would be sufficient ; six months is now allowed for the specification ; there might be a power of extending the time for the specification ; but in the majority of cases six months is enough, because a person ought not to go for a patent for an invention till he has matured it to a certain extent.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned until Friday, the 2d of May,
 at One o'clock.

Die Lunæ, 5^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

THOMAS WEBSTER, Esquire, is called in, and further examined as follows: *T. Webster, Esq.*

5th May 1851.

102. IS there anything which you wish to correct in the evidence which you gave on a previous day?

In the evidence I gave respecting the proceedings of those different societies or committees for the amendment of the patent law that were referred to, I mentioned, that the leading features of the Bills under consideration had been suggested by or originated with the Manchester Committee. It appears from this Return to the House of Lords, of Copies of all Memorials, &c. to the Board of Trade on the amendment of the Patent Laws, that the memorial presented to the Board of Trade from the Patent Law Reform League was a month before the memorial of the Manchester Committee, in point of time. That memorial also, I would observe, refers to the provisional registration of inventions as being the leading feature of the proposed reform. The experience which I have had during the last three weeks upon the working of provisional registration under the Protection of Inventions Act, 1851, leads me to form a very high opinion indeed of its importance; that is a peculiar feature of the Government Bill.

103. Is not that a provision which you rather objected to before?

I cannot say that I objected to it; I said, that I did not quite understand it, and that I thought there was some mistake or omission in the clause as printed in the Bill; I have, however, had an opportunity of seeing the late Attorney-general, the present Master of the Rolls, since, and discussing the clause with him, and I think, with a slight modification, it would be a most beneficial clause.

104. Will you be so good as to state what has taken place under the Design Extension Bill, and in what manner you have found it to work?

The principle of that Bill, as far as regards provisional registration of inventions, is very much what is contemplated in this 13th clause. The operation of it has been this: inventors have sent in their inventions to the building in Hyde-park, and a description to the Attorney-general, which being certified as sufficient, they have obtained protection for a limited period by provisional registration. The working of it has been this: poor inventors who would have been wholly unable to obtain protection under the present system of patents, and who were very often unable to write any adequate descriptions of their inventions, on having their attention called to the insufficiency of the description of their inventions, have had it altered, and it has turned out, that inventions which would have been rejected upon the ground of insufficient specification or description as originally sent in, have proved to be very useful and very important inventions in a great many instances.

105. That advantage is attributable to the fact, that the Attorney-general is authorized to appoint certain gentlemen of scientific attainments to examine the inventions, is it not?

Yes; it is very important to distinguish between matured inventions and inventions which are in project. This 13th clause of the Government Bill contemplates this state of things, that a party having matured his invention, being
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a poor man, and unable to raise money upon it to enable him to obtain a patent for it in the first instance, or to carry it out, but having deposited then and there his invention with a sufficient specification, may have provisional protection first for six months, and then for a longer time; but such protection will be of no practical avail, unless he subsequently obtains a patent for the invention. That is a different practice to anything which at present exists in the patent law or in practice. According to the present practice, the invention may be, to a great extent, speculative; you do not require the person to have matured his invention before applying for a patent, and do not give any peculiar privileges to matured inventions. There are many cases in which you cannot have a matured invention till you get protection for experiments; and the importance of the working of provisional registration in respect of matured inventions is shown by a number of inventions now in the great Exhibition, many of which certainly would never have been there, and never would have obtained protection but for that measure.

There is another class of cases to which provisional registration is applied; that is, the class of cases which would have been attempted to be protected under the Registration Act, but which could not have been protected under it. A considerable number of the descriptions which came in for provisional registration under the Protection of Inventions Act, had been originally prepared for registration under the Designs Act, and all the parties did was to strike out the words "shape and configuration," which are the particular terms used in the Designs Act, and insert "mechanical principle" or "mechanical combination," or something of that kind. That opens another very important question, which I do not know whether this Committee will enter on, but which must be entered on soon. I refer to the large number of inventions which are being registered under the Designs Act, and for which no protection can be given under that Act; in fact, it amounts in many cases almost to a robbery, because poor inventors give credit to a public office, and there being no provision at present by which inventions can be protected at a cheap rate, they think that, by availing themselves of the provisions of the Registration Act, they can gain protection; whereas, in point of fact, they cannot, as was decided last week in the Court of Queen's Bench, in a case in which a magistrate had inflicted two penalties of 30*l.* each, and 10*l.* costs, and considerable expense had been incurred in litigation. Inventors hope, that by using certain terms of art, they may get some protection, or, at all events, may get some credit with the public for it; and the persons employed in or intrusted with the preparation of the necessary drawings and documents for registration may not always give them the best advice upon the matter which can be given, and the result is, that many doubtful cases are registered which would at once be otherwise dealt with under a proper Patent Act. The working of the Protection of Inventions Act shows that most distinctly, because the moment they found they could get protection for what was legitimately the subject of a patent, they brought the papers which had been previously prepared for registration, striking out those words "shape and configuration," which were the badge and incident of the Registration Act, substituting other words "mechanical principle" or "mechanical combination." You could not cure invalid registrations, but you can give protection for matters which are the proper subject of patent at a cheap rate.

106. Are there any additional provisions which you would like to see introduced into the Government Bill?

There are several clauses which might be introduced, I think, from the other Bill, which are not provided for in the Government Bill; and there are also clauses as to registration and the transfer of licenses, which might be introduced. One of the difficulties which now exists is the inability of ascertaining in whom letters patent are invested, or where the interest is. Sometimes, in the case of proceedings by *scire facias*, you have no means of knowing who are the actual owners of the patent. Those, however, are matters of detail, which can very easily be introduced.

107. Is there any reason why the name of the patentee should not be recorded?

None whatever. If the patentee, or rather the names of the assignees, were recorded, you would know who were the persons actually interested in the patent; and that would be important in reference to the certificates of title, so that

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in legal proceedings in Scotland and Ireland, you would make the certificate of the office *prima facie* evidence of the existence of the grant, and do away with any necessity that has been supposed to exist for three patents for the different countries.

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108. It has been stated by some parties that there are between 30 and 40 different stages in the process of obtaining a patent; is that the case?

That is so stated under a misapprehension of the actual practice, and a misapplication of the word "stage." The actual stages may be considered as eight: first, the leaving the petition and the declaration at the Home Office, which I should call only one stage; because, otherwise, you might say, that when a man writes a letter and posts it, he does six or eight distinct acts. Then comes the reference to the Attorney-general, which constitutes the second stage; then there is the report of the Attorney-general to the Crown, which is the third stage; then there is the Queen's warrant, which is the fourth stage; then there is the Bill for the letters patent, which is the fifth stage; then the Signet Bill, which is the sixth stage; then the Privy Seal Bill, which is the seventh stage; and the patent, which is the eighth and last stage.

109. That is in the case of an unopposed patent?

Yes; if it is opposed there is no distinct stage for that; the opposition takes place before the Attorney-general; you can hardly call that a distinct stage.

110. There is a hearing before the Attorney-general?

Yes, that is one of the various acts which may be done; there may be other acts, but they cannot be called distinct stages in taking out the patent, excepting in the sense, as I before said, in which when you write a letter, the getting the paper and materials, and writing it, and sealing it, and posting it, are distinct stages in the operation.

111. Do you think that those eight stages are so surrounded by detail as to render the proceedings unnecessarily complicated or dilatory?

Those eight stages have a number of other proceedings connected with them; but with the exception of the hearing before the Attorney-general in the case of an opposition, there is no distinct independent act which you can subdivide and say it is a separate proceeding. You prepare your petition and declaration, and leave it at the Home Office, and it is referred to the Attorney-general or the Solicitor-general. I do not call those distinct stages.

112. To what number of stages would you yourself wish the proceedings to be restricted?

Three: first, the application; secondly, the hearing by the Attorney-general as the law officer of the Crown; thirdly, the sealing of the patent: there should be added to those, perhaps, the sign manual.

113. Do you require the sign manual; is not the Secretary of State just as competent as the Crown to sanction the passing of a patent?

I have assumed that it would go to the Secretary of State; that would be tantamount to the sign manual.

114. You imagine that by confining it to those three stages, the object would be as effectually answered as it is at present by eight stages?

Yes.

115. Is it necessary that you should go to the Secretary of State at all?

I do not think it is necessary at all; it is rather a technical question, a question arising upon a matter of general policy, inasmuch as the name of the Crown is used, and grants are made in the name of the Crown and under the Great Seal; the practice, as I understand, having uniformly been, that at some stage or other there should always be, directly or indirectly, the sign manual of the Crown.

116. If you did not require the sign manual or the sanction of the Secretary of State, you would not make application in the first instance to the Secretary of State; does not it appear to you that the application should be made to the party by whom the final decision is to be pronounced?

I would not make the application to the Secretary of State in the first instance, even if the sign manual be required, and for this reason: it is an essential feature of the present suggestions for patent law reform, that the patent should or may bear date from the day of the application; then, inasmuch as it is to bear

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the Great Seal, the authority for which is deposited at the Great Seal Patent Office, there ought to be at the same office a record of the date of the application; that changes the thing entirely. Now, inasmuch as the patent does not bear date till the day of the sealing, it does not matter when the application first gets to the Great Seal Patent Office; but inasmuch as it is essentially the one point upon which all are agreed that there should be protection from the time of the application, a record of the application ought to be at the same office as that from which the patent comes when it is sealed, because then the officers would see that the whole thing was correct; therefore the going to the Secretary of State at all depends purely on the question as to whether the Great Seal or the name of the Crown is to be used in grants of this nature without the sign manual, or something tantamount to it in the shape of the authority of the Secretary of State.

117. Would not it be the case that a patent for an invention would then be put on a different footing from that of other patents, such as patents for appointments which must go to the Secretary of State?

There are a certain class of grants which pass by immediate warrant, such as Judges' patents, and the patent appointing the Attorney-general, but those go at one stage to the Secretary of State. You might liken the granting of patents for inventions to them; in those cases you begin at the Great Seal Patent Office, and conclude at the Great Seal Patent Office.

118. Every patent goes in the first instance to the Secretary of State at present, under the notion that it is fit that a discretion should be exercised somewhere upon the expediency of passing the patent?

I think that is not the case with every patent at the first stage; some patents, as those for Serjeants or Queen's Counsel, originate with the Chancellor. If they do not originate on petition as patents for inventions do, they originate with the Chancellor, and then a minute goes from the Chancellor to the Crown, and an authority is given from the Crown for making the patent.

119. Which is the process which takes place in all other patents, only instead of going from the Chancellor, they go from the Secretary of State?

Yes.

120. There is somewhere, in some officer of the Crown, a discretion vested as to the expediency of granting the patent or not?

Yes.

121. In discussing the arrangements which should be made for the purpose of passing a patent, what do you consider to be the main object to the accomplishment of which those arrangements should be directed?

I think the objects are twofold; first, that there should be an opportunity for some discretion to be exercised; as for instance, the judgment of the Attorney-general, or the officer appointed for the purpose, as to whether there should be a grant at all; secondly, and mainly, the affording him some means of obtaining correct information upon which he should exercise that discretion. As the matter now stands, he exercises that discretion without having, practically, the means of obtaining sufficient information for the proper exercise of that discretion. Unless a patent happens to be opposed, he has no information before him at all, except the *ex parte* statement of the inventor, or if the patent be opposed, it is an *ex parte* hearing on either side, and he is very often left in the dark, the proceeding before him being one in which each party is trying to gain his own end. He is afraid to say much, because the questions he might ask would disclose to the opposite party the very invention, or the very secret, which is wished to be kept from him. One great point, as a practical measure to which attention should be directed, would be this—that both the applicant and the opponent should be bound, from the first moment, by a statement in writing, as to what the invention is in respect of which the patent is sought, or as to what the invention is in respect of which the patent is opposed, or the grounds of the opposition, so that the Attorney-general or the officer might, if he thought fit, have both parties before him, face to face, both having been bound from the first by their own written statements.

122. The object of the whole process would be, to create a tribunal empowered to judge of the propriety of granting the patent, and rendered more competent to judge of it?

Yes;

Yes; I would leave the ultimate control of that question with the law officers of the Crown, because the ultimate point upon which it must turn is the propriety of the creation of a legal right. The tribunal which I would create, in addition, should be one in aid of their jurisdiction; that is to say, it should afford the means of information, and present the facts of the case in the nature of a report upon which the law officers could decide, and to which report either party might take exceptions.

T. Webster, Esq.

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123. Leaving the law officers of the Crown to decide the legal part of the question, assisted by competent assessors, who should deal with the scientific part of it?

Yes; I would liken it to the process which has been going on under the Protection of Inventions Act. When an inventor sends in his statement, it should be reported on, as to whether it would be a proper subject for a patent, or rather, upon what grounds it was not a proper subject for a patent; viz., upon the ground of want of novelty. I would place such a tribunal entirely under the control of the law officers of the Crown, because a person should not be prevented from having a patent upon any trivial objection.

124. How would you lay down the rule as to what was the proper subject of a patent?

You could hardly lay down rules as to what was the proper subject of a patent.

125. In what way would you give the tribunal which would have to decide upon the question, some indication of the principle on which it should decide?

That must be a matter of discretion with the Attorney-general, as it is at present. I could not lay down any positive rules as to what would be a proper subject for a patent, but you might lay down rules as to what would be an improper subject for one; as for instance, where there was a want of novelty.

The Witness is directed to withdraw.

WILLIAM CARPMAEL, Esquire, is called in, and examined as follows: *W. Carpmael, Esq.*

126. YOU are a patent agent of considerable experience?

Yes.

127. You were examined before the Commission on the Privy Seal and Signet Offices, and also before the Select Committee which met a few weeks ago, respecting the Extension of Designs Bill?

Yes.

128. What is your opinion of the working of the present patent law?

The law, generally speaking, works very well; the time occupied in the process of obtaining a patent at present is objectionable, otherwise the practice works very well.

129. There is great dissatisfaction expressed, is there not, among inventors?

I do not think there is a great amount of dissatisfaction expressed by inventors generally; there are certain classes of people who make a considerable outcry, but, generally speaking, they are classes which know very little about it, so far as my experience goes; I do not say that the present system is entirely approved of, but I do not think there are many who, being thoroughly acquainted with the present system, make much outcry as to its working.

130. Is the expense of obtaining a patent the same in all cases?

It is the same in all cases, except that the expense increases if there are several names in a patent.

131. Do you consider it an advantage or disadvantage that there should be a necessity for applying to different offices in passing a patent?

I think it is desirable that patents should pass through several offices in order to give time for a full investigation of the subject, and to enable opposing parties to come in and have their rights investigated; otherwise wrong and great wrong may often occur.

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132. How many stages are there now at which opposition can be made?

There are three stages at which opposition may take place; the first is the report by the Attorney-general; the second, upon the signing of the Bill by the Attorney-general; and the third, before the Lord Chancellor.

133. Practically, does opposition take place in all those stages?

Yes, in all those stages; and in many cases very great benefit has accrued from having these opportunities for opposition. The practice is, that a party in coming in to oppose a patent before the Attorney-general, in the first instance, pays only his own expenses, whether he stops the patent or not; but if he goes to the second stage, and opposes, then he has to pay the expenses, whether he succeeds or not; so that there is entailed upon him a greater cost in the event of his opposing at the second stage. At the third stage, before the Lord Chancellor, I do not recollect any instance where the Lord Chancellor has not ordered the costs to be paid by the opposing party, so that the costs, generally speaking, whatever may be the result, come upon the opposing party, after the first stage.

134. At the stage before the Lord Chancellor, is it not the usual practice for him to refer the case back to the Attorney-general?

Since Lord Brougham's time that has been the practice; formerly it was not so.

135. Lord Brougham introduced that practice?

Yes.

136. Are those different stages a source of expense as well as a source of delay?

They are necessarily a source of expense, because every office receives fees.

137. Do you think it an advantage that there should be both delay and expense in the passing of patents?

I think if a patent could be passed within a fortnight, that would be a reasonable time for passing it, and a reasonable time for parties to come in and be heard. With regard to the expense, I have a very strong feeling, though my interest is the reverse way, that it is the only mode by which you can shut out a multitude of applications for nonsensical matters; I entertain a very strong feeling upon that subject. Either of these Bills being passed, or any one of the suggestions before the public being adopted, would probably give me a larger benefit than anybody else; but notwithstanding that, I entertain a very strong feeling that cheap patents would be highly pernicious to the country.

138. You think that it is a good mode of preventing the abuse of patents that the system of granting them should be expensive and complicated?

I do not say complicated; I only say expensive; I do not think it desirable that anything should be complicated where it can be made simple.

139. You think it is necessary to have some check to prevent every person who may imagine that he has made some invention, though perfectly nonsensical, applying for a patent?

Yes.

140. And you think expense is the best check which can be imposed?

I know of no other.

141. What would be the evils which you imagine would arise from a great multitude of patents?

It would decrease the value of every patent. The impossibility of obtaining a sound patent is in proportion to the number of documents which the party who draws the specification has to contend against.

142. Is that the only objection?

That is the main objection. I am also strongly of opinion, that we should not increase the beneficial invention of this country by having a larger number of patents; and I think the benefit to the meritorious inventor would be increased if we had a less number of patents at the present day.

143. How far would you wish to diminish the number of patents?

The number of really beneficial inventions is confined to those which are successfully worked, and which benefit manufactures; any number of patents which

which goes beyond that, is prejudicial not only to the individuals who have the patents, but to the public. *W. Carpmael, Esq.*

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144. What proportion of successful patents lead to litigation?

A very small proportion; litigation arises mainly out of there being an unsatisfactory specification. I have many hundreds of thousands of pounds of income under my advice and direction at the present time per annum, and the number of suits which are tried is exceedingly small. We do not have, upon the average, so far as my memory goes, ten patent causes in a year.

145. Are those suits avoided by the perfection of the specification, or are they avoided very much by compromises between the different parties?

Mainly by the sufficiency of the specification. Compromises generally grow out of the doubtful state of the specification; with a sufficient specification compromises are very few in comparison.

146. What are the days of sealing at the Privy Seal Office?

The day of sealing is Friday; and I think that is the greatest annoyance in the whole process of passing a patent, because it is only once a week, and in the autumn, his Lordship the Lord Privy Seal goes out of town, and we have to send documents all over the country to get them sealed; the consequence is, we have sometimes a delay of ten days or a fortnight by that circumstance. My feeling is, that the Signet and Privy Seal Offices ought to be open. If they are to exist, we ought to be able to go in one day, and receive the document on the next. If that were the case, I do not think there would be any objection to the Privy Seal and Signet Offices being retained. On the contrary, I think them desirable. I have known an instance of the Privy Seal Office detecting a fraudulent document, and stopping it at that office; and wherever there is a check, and a beneficial result follows, I would not do away with offices unless greater benefit is to accrue from their abolition.

147. What was the nature of the fraud which was detected at the Privy Seal Office?

There was a document prepared and sent to the King; it was signed and went in. The parties had prepared their own documents, but there the fraud was detected.

148. You state that a great deal of delay often occurs in sealing a patent, from the absence of the Lord Privy Seal; is not it rather because there is only one day in the week for sealing?

No, not so much that; there, it is true there is but one day of the week, even when his Lordship is in town, that we can get through his office. My own feeling is, that the office ought to be open day by day. But we are still worse off when his Lordship is absent, for we have to send the documents into Scotland to follow his Lordship, in order to get the seal appended.

149. Having the whole matter before you, the extent of the delay which there can be between the transmission of the instrument and its return sealed, cannot exceed four days, can it?

We receive the document back from Her Majesty sometimes on Thursday, the sealing day is Friday; and unless we get it into the Privy Seal Office in time for that day, we go over to the next Friday; if we receive it on Friday, we go over to the next Friday. They send off boxes from the Privy Seal Office on certain days. I wrote to my Lord Privy Seal on the subject, and my Lord Privy Seal said, the subject generally was under consideration, and referred to a Commission which was sitting at the time, his Lordship, I think, being one of the Commissioners. We had, at that period, patents delayed, I will not undertake to say how long; I pointed out instances of patents being delayed a considerable time in consequence of having to go to his Lordship in Scotland. My own feeling is, that there is no reason why the Privy Seal and Signet Offices should not be open day by day, and that we should be able to go in and come out as we can at any other office; it is the only office, except the Great Seal, now existing at which such a regulation prevails.

150. You state that you think that patents ought not to be made too cheap or too easily obtainable; are you of opinion that the present patent law might be safely repealed altogether, and inventions deprived of all privilege of protection?

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I can only say that I can see no inducement to an inventor to come forward to benefit the manufacturers of this country, unless you give him some reward. Looking through the history of the whole of the manufactures of this country, you will find that all the steps have been founded upon patents from the earliest date up to the present time; take any one branch, whether it be the cotton manufacture, the steam-engine, the manufacture of flax or wool, in the case of every one, if we trace the history of it through, which I should be very happy to do if it were necessary, it will be seen that the whole system is built upon patents; paper-making the same, and so in every branch that I remember.

151. Is not it natural that any one making an invention should apply for a patent which confers a monopoly upon him; does that prove that the invention would not have taken place, and would not have been communicated to the manufacturers if the patent laws had not existed?

I should say the difficulty of introducing a new invention is such that no man would take it upon his shoulders unless he were to get a profit; so difficult is it now to induce manufacturers to go into that which is new, that parties are often obliged, in the granting of licenses in the early period of the patent, to grant them for nothing, in order to induce the manufacturers to change their system of manufacture, and to accommodate it to the new invention.

152. Do you consider that the principle upon which the patent laws rest is that of affording a stimulus to invention?

It is.

153. How do you reconcile that principle with the refusal of patents to a multiplicity of small inventions?

I do not wish to refuse them that protection; and my notion is that they ought not to be refused where the inventor has really made a step in a manufacture.

154. I understood you to say that the granting of patents in a great multiplicity of cases was prejudicial to really good patents?

Yes, and coupled with that, I stated that I did not consider that we should, by so doing, increase the number of real and valuable inventions.

155. Are there not a great number of inventions which would come under that class of small inventions?

I think not; a multitude of things for which patents are granted have no invention in them; in 19 cases out of 20, if there were cheap patents, they would be for things which already exist, and people would only use patents for the purpose of advertisement and publication.

156. How is it possible that the increase of expense should act as a check upon such cases?

Because parties, before they take out a patent, as they have so much to pay for it, investigate the subject, and see whether it is probable that it will justify the outlay they are going to. If you grant a patent, and give to a man the means of advertisement for a small sum of money, he will not investigate it in the slightest degree in the world; he does not inquire, and does not wish to inquire, but he goes and spends his money, and then he advertises, because the patent appears to give him a standing different from his competitors in the same way of business.

157. You do not admit the argument put forward by the Society of Arts, that every inventor has a right to be protected?

No. I have always considered that it is a privilege granted by the prerogative of the Crown to induce inventors to come forward and benefit the manufactures of their country by invention and outlay of money to bring the same into use; that is the feeling I have always entertained on the subject myself.

158. You rest it upon expediency and public advantage, believing that such a stimulus is required, in order to induce persons to invent at all?

I do; I think it is wholly a question of public advantage.

159. Do you not think that the fact of a patent being granted is a considerable obstruction to anybody else inventing in the same line?

Certainly not; I assume this as a fact, that if a man has made an invention in any

any branch of manufacture, he has made a step which will be beneficial to those who are to become the users of it, otherwise he has nothing to offer; and if he has anything to offer, manufacturers ought and will readily contribute a portion of the benefit which they, as users, are to derive out of and through him.

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160. You think that in no case where a useful improvement in the course of a manufacture suggests itself to the mind of a man, will be deterred from making that improvement for fear of being dragged into litigation by reason of his infringing some other patents?

From my experience among manufacturers, I can only say it has not done so, nor do I think it will do so.

161. Do not you think that the stimulus which a patent gives to a man withdraws a great many ingenious artisans from their usual and more useful work, in order to endeavour to invent things which, when invented, are of no use whatever?

No; in modern times that state of things is totally changed; in olden times, an inventor used to be one of that handy class of men who could turn their attention to anything; in modern times, such has been the division of labour, that a workman in a factory at the present day has only to pursue one beaten track, neither turning to the right hand nor the left; he goes on doing the same act day by day, and gains a facility by reason of his constant attention to one subject in doing that particular thing well. By reason of that, he does not use any inventive faculties or any ingenuity; the ingenuity which he brings to bear is to produce the largest quantity of the thing which he is set to do, if he is paid by piece-work.

162. In point of fact, is not it the case that the author of a new invention, whether patented or not, is for a considerable time generally employed by those who desire to take the benefit of his invention?

There are many cases of that kind; but it is not the prevalent or general state of things.

163. Are not you aware of some very valuable inventions which never have been patented at all?

I cannot fix my recollection upon one where the party would have taken out a patent for it if he could, and which the public have become possessed of without having to pay anything for it.

164. Take, for instance, Mr. Grant's biscuit machine in the dock-yard?

If your Lordships were to have that investigated, you would find that there was very little for which Mr. Grant could have taken out a patent, because much of the machinery existed in a variety of directions, part here and part there; I have not seen the biscuit machinery, and do not know what additions Mr. Grant may have made to it of late; but, as far as my experience in bygone times goes, I know there would have been very little which would have induced a man to take out a patent, and there is not the demand for that class of machinery which would induce me, if I were consulted on the subject, to advise him to take out a patent for it at all; because there are not many Admiralties, and therefore there are not many parties to pay for a patent in that case; the primary object to consider is the field which a man would occupy supposing he gets his patent.

165. According to the explanation which you have given, the existence of a previous patent possibly stands in the way of the improvement of this patent?

No; suppose a patent exists for one state of things, and a second party comes with an improvement upon that state of things, he takes out his patent for the improvement, but he cannot use it without the consent of the previous patentee; but the original patentee's licensees may have licenses, and use it in the same way under the second party as the first, and it thus happens that the first patent in no way retards the second.

166. Therefore, the first patent, which is totally unsuccessful, being generally improved by another man, the man who has made it really useful and efficient derives no benefit from it till he has obtained a license from the original patentee?

Your Lordship must take this into consideration: the validity of a patent depends upon its success; if it fail of success, it is no longer good, and there-

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fore stands in the way of nothing; but the second patentee, building his claim upon the ground of the original patent, supposing the original to be a successful one, ought, in my opinion, to pay in proportion to the value of that which he gets from the original patent, without which, probably, the second would never have existed.

167. Is it the case that a man who happens to stumble upon the last step of a process which has been discovered by the scientific inquiries of many men for a long time before, does, by the present law, in any way contribute to reward those who have the real and chief merit of the discovery?

He in no way contributes to reward them.

168. Is not it the case, that improvements are continually being made in every trade in this country which do not partake so distinctly of the character of an invention as to be the subjects of patent protection?

There are many improvements for which patents are not sought, and for which it would not be desirable to seek them.

169. My question has reference to that class of inventions for which patents could not be sought; improvements not partaking sufficiently of the character of inventions to be entitled to the protection of the patent law, but which are still practical improvements of various kinds in every trade in this country?

These are the facilities which men get from using instruments, from the better knowledge they attain of the material which they are dealing with, and the greater aptitude that they acquire in performing processes which they go over several times; those are all improvements leading to a real ultimate result; they are distinguishable from inventions, and have several features wanting to make them real inventions, but they are, notwithstanding, the cause of important improvements in the manufacture.

170. There are important improvements in manufacture constantly taking place in every trade in this country, but not patented?

Not patentable.

171. Do not the parties making those improvements derive from them such benefit as acts as a stimulus to the making further improvements of the same character?

Of the same character, certainly.

172. If improvements are continually being made by parties, and they derive from those improvements such pecuniary benefit as stimulates them to make further improvements, though they have not the benefit of patent protection, may not we fairly infer that, in those subjects which are amenable to the patent law, the same principle would operate if the patent law did not exist?

No, and for this reason: the improvements which I have been speaking of in answer to your Lordship, are those which grow out of a better knowledge of the material, and such facilities as do not require any change in the manufacture; but whenever a new principle, or a new ingredient, is brought to bear in a manufacture, it requires a change in that manufacture, a necessary outlay, and a new understanding of the parties to carry it out; and, therefore, it would not be gone into by the parties, unless they had some inducement beyond any benefit which they themselves would reap by simply working it, seeing that their neighbours would reap the same benefit immediately the improvement succeeded. The first cost of putting a new invention into practice is so much larger than the second, or any which follows the first, that no man would venture to be first in a large change, such as Watt's steam-engine, or spinning cotton by machinery in place of by hand, or propelling a vessel by a screw in place of a paddle-wheel, and so on.

173. Take the history of the cotton manufacture; in the printed report, it appears there were 90 patents for improvements in the cotton manufacture granted during last year; do you not think that by far the larger number of those patents partook of the character of little inventions, more analogous to the improvements which I have been speaking of, than of the character of the great inventions of which you have been speaking?

No, I think not; so far as my knowledge goes, I should say they are decidedly

decidedly changes, and in some cases important changes, either in the machinery or in the processes requiring a greater or less change of the system. *W. Carpmael, Esq.*

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174. Do you think that the great proportion of those 90 patents are of such a nature that the parties would not have availed themselves of the benefit of them if they had not had patent protection to encourage them?

I will not venture to answer with respect to the last year; but if your Lordship will carry it back a few years, having an intimate knowledge of what has transpired in those years, I should speak with more confidence. Looking, however, at those which I know, even within the last 12 months, I should say that they do not partake of the character of those changes which depend upon increased facilities; but they do partake of the character of changes in the formation and the structure of the machinery, or in the adaptation of the processes to the machinery. I think they would not have come into existence but for the prospect of a patent, because the parties would not have received that benefit which would have induced them to change their machinery, or to go to the necessary expense, seeing that their neighbours would immediately follow them, and take advantage of what they had done.

175. Probably, from your experience, you may be able to answer this question: whether, in proportion as any great branch of manufacture advances to a higher state of refinement, the nature of the inventions applied to it do not more and more approach to the character of mere improvements, not involving such large changes as are involved in the first invention upon which the manufacture is built?

There is considerable difficulty in knowing what your Lordship would consider a large invention, and what a small one; I can only say my experience goes to this, that there are no large changes in the mechanical structures by which manufactures are brought about at any one time. The changes in the machinery, and the changes in the processes, though large, and sometimes even enormous in result, are generally, to an unaccustomed and unpractised eye, exceedingly small; but such improvements often involve principles by which the whole system of the previous working is very often changed.

176. I use the word "large" in the sense of an invention which involves, immediately upon the adoption of it, a considerable change in the machinery to which it applied. The object of the question was, to draw your attention to this point, whether, in the earlier stages of an important manufacture, the inventions do not partake more than in a later stage of that character which is described as involving a very large change in the machinery through which those inventions are to be rendered operative?

I should think not; for if you trace, for instance, the history of the steam-engine from the beginning, you will find, after the original steam-engine of Newcomen, in which the piston worked up and down in the cylinder, and the vacuum was obtained by condensing the steam in the cylinder, Watt made his original proposition, that the vacuity should be obtained in a vessel extra the one in which the piston worked, which was a large change in the result, but practically small in the quantity of machinery. We have since had no great changes in the steam-engine, and yet we have had very highly important changes; so much so, that since the time we commenced running between England and America, the diminution of the time has been very great, and has been caused by simple changes in the mechanical structure of the steam-engine and the mode of letting on and off the steam; yet the changes as regards the result have been great, and the mechanical changes have necessitated for the most part the changing of the form of the whole of the engine.

177. Do not you think, with regard to the inventions connected with the steam-engine in later times, that the inducement which would arise from the making of engines upon that improved principle, in the first instance, would be sufficient to encourage the parties to make the invention, and apply it without giving them a prolonged monopoly of their invention?

Quite the reverse. Every one of the improvements I am speaking of, I believe without exception I might say it, has come through a patent; and unless there had been a patent, no person would have ventured upon the changes which were brought upon them by such improvements.

178. What reason do you assign for that last opinion?

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Take, for example, Maudslay and Field. They are as adverse as any men possibly can be to having patents, if they can help it, and yet they have patented their changes. Penn has done the same thing; and several other engineers have done the same. The cause of their doing it is this: they do it to prevent their competitors following immediately in their wake, and doing the same thing. How else would those men rise into eminence? What would be the inducement to a man to lay out money, and to alter his system of manufacture, when, if he did so, his competitors would follow him if he succeeded, but they would not follow him if he did not succeed?

179. Is not it the case with every kind of improvement, that if a man makes an improvement, he will be followed by those who compete with him if it is successful, but will be left to suffer the loss if it is unsuccessful?

Yes, if no patent be taken; but a man engaged in a manufacture scarcely ever makes a change which produces an important result without patenting it.

180. If the profit arising from the improvement is so great, would not that be a sufficient inducement without the protection of a patent?

There is no profit in the cases I have been speaking of, and I selected them on purpose to answer my Lord Overstone's proposition. The patentees in these cases do not charge more for their engines than other persons, but they induce a number of the public to come to them, who would not otherwise do so, because like engines are not to be had elsewhere.

181. Do you think that you could possibly so distinctly define the line which ought to be drawn, according to your views, between improvements which ought to have the protection of a patent, and improvements which ought not to have the protection of a patent, that any tribunal having to decide upon these matters might easily come to a conclusion as to what improvements ought to be patented, and what ought not?

I think the present judicial decisions amount to that completely; wherever there is a practical change producing definable results that is patentable; whereas the improvements I was speaking of just now are improvements which grow out of the increased facility of using the processes and the instruments employed in it, thereby producing larger results by a better knowledge of the materials dealt with. There is no real change, or rather I should say there is no definable change, but only increased facilities that grow out of the better use of materials and instruments.

182. Do not some of those subsequent alterations produce the very important results of which you have spoken?

No, I apprehend not.

183. When you say that there is no definable change, is that strictly the case; is it possible that any improvement, however small, can be made without some definable change?

There would be this definable change, that a man carrying on the process would at the outset take some time in going through with it. It may be the process of heat, or anything of that kind. He would find in the course of time and practice, that the period he had occupied, or the length of the process, might be curtailed in a variety of ways, either by getting up his heat faster, or letting it down faster. I do not think you could point out an invention really existing, where change of instruments or processes is the result, which is not definable, and for which a patent may not be had. I distinguish those which are mere changes of facility, and changes arising from a better knowledge of the process, from those which make a positive change in the process, instruments or machines.

184. What is merely a better application of an already known invention, you do not consider a matter which ought to be patented?

Any change which takes place in a manufacture is and ought to be patentable.

185. If the change consists merely as you describe it, in the better or improved application of a discovery already made, the manner of applying it being the improvement, should that be protected?

That is patentable.

186. What

186. What change, or what alteration, which amounts to an improvement, would not you have patented? *W. Carpmacel, Esq.*

My own feeling is, that any change which produces a beneficial effect upon a manufacture ought to be patentable? *5th May 1851.*

187. Suppose a person makes an important improvement, say in cotton spinning, and takes out a patent for it, is there any power by which you can prevent that improvement becoming known to, and used by, foreign competitors.

No; on the contrary, you are required by the conditions of your patent, that a specification should be enrolled within six months, and of that specification a copy may be sent abroad immediately it is enrolled.

188. What do you conceive would be the effect of a patent under such circumstances; suppose A. takes out a patent for a very important improvement in the cotton manufacture in this country, of course A. alone can use it in this country, but it becomes useable, and is used by all competing cotton manufacturers in the world?

The effect of that, at present, has not tended to injure this country. But your Lordships should bear in mind, that there are patent laws all over the world, similar to those of England, and A., if he chooses, may protect himself in every part of the world.

189. Is it not the case that successful patentees purchase up all subsequent patents from other inventors who have obtained patents for improvements upon that for which they have the original patent, not for the purpose of making it public, but for the purpose of concealing the improvements which might make the arrangements which they have entered into for carrying out their own patents useless?

I know of no instance, and I do not think any instance could be given of anything of the sort.

190. You have heard of the electric telegraph?

I have. I have been consulted on all sides, and therefore I can give an opinion upon every branch of that subject with the greatest confidence; I am at present consulted by both companies, and by external parties as well as the companies.

191. Will you take upon yourself to say, that no invention connected with the electric telegraph has been bought up under those circumstances?

I do not believe there has been one. It so happens that I am engaged for all sides, and therefore I speak with a considerable degree of confidence.

192. The conclusion you would wish the Committee to draw from your evidence is, that the present law, upon the whole, works well, and requires only some slight modification?

We have been hitherto dealing with the law of patents, and not with the practice of obtaining patents. My own opinion is, that the law of patents, as it at present stands, is in as efficient a state as any law of this land at the present day.

193. Do you mean for the public good?

For the good both of the public and of the inventor; I do not think the public can ever benefit to the prejudice of an inventor if the law be good; neither do I think that the law would be good if the inventor benefited unfairly, at the expense of the public; unless they are fairly balanced, I think the law must be bad; I believe they are at present fairly balanced, by the manner in which the courts of law decide these cases; and therefore I think that the law of patents is a law which works exceedingly well.

194. Do you think the existing process by which patents are obtained might be simplified?

I think it might be simplified; the process, however, is simple now; but if we could shorten the time occupied in taking out the patent, it would be desirable.

195. Should the expense be diminished?

I think it might be diminished with advantage to some extent, but not largely.

196. Do you think either of the stages of the Patent Bill Office, the Signet Office or the Privy Seal Office might be dispensed with?

I think the Patent Bill Office, or something analogous to it, is desirable, in order

W. Carpmael, Esq. that opposition may be made there. If we could have patents passed within a fortnight, my own feeling is that there would be no necessity of doing away with any of the offices ; but, rather than have the delays which we are now subject to, I see no reason why the Bill should not go direct to the Great Seal. Assuming you have the guards you now have, I do not care what form the patent takes, or where it is granted, or how it is passed, but still I want the guards, in order that the inventor and the public may be protected.

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197. Is the term for which patents are granted the same in all cases ?

Yes, 14 years.

198. Sometimes they are renewed, and sometimes they are not renewed ; in what cases are they renewed, and in what cases is the renewal refused ?

The renewals are always granted, so far as my experience at the Privy Council goes, when the party shows an important invention, considerable expenditure and no remuneration, or but a small remuneration compared with the benefit of the invention, and the expense to which he has been put.

199. For what time is a patent usually renewed ?

I have known them, I think, renewed for three years, and for as long as 14 years. I think there are only two patents which have been renewed for 14 years ; the others have ranged between five and seven years.

200. Is the duration of the term of renewal within the discretion of the Attorney-general at all ?

No ; the Attorney-general has nothing to do with it, except appearing before the Privy Council as the representative of the Crown and the public, to assist their Lordships. The discretion is entirely with the Privy Council.

201. Is the expense of obtaining a renewal the same in all cases, irrespective of the duration of the term for which it is renewed ?

The expense will depend a great deal upon the number of witnesses, and other external matters of proof ; no two cases are alike.

202. You do not think the law or the practice requires any alteration in respect to renewals ?

No, I think it works exceedingly well.

203. In your opinion, there is a large class of cases of important inventions which have been the result of a great expenditure, partly of money and partly of time, which would not have been made without the inducement of a patent ?

I believe the manufactures of this country would not have been anything like what they are, had not it been for the patent laws.

204. Can you, without difficulty, point out a certain number of very important inventions, which were preceded by such costly experiments that they could not have been carried out without the patent law ?

Watt, in the case of the steam-engine, was seven years before he got the first engine to work efficiently. In the case of Arkwright's machine for spinning cotton, he was several years before he got it efficiently to work. In the case of Crompton, the same ; in the case of Hargraves, the same. Then, in regard to combing wool by machinery, and the first power-loom by Cartwright, he did not succeed in getting practically to work for many years, and he was rewarded by Parliament for what he had done, because he had not been remunerated in the working of his patent. The paper machine was worked out by a series of costly experiments, which never would have been entered on but for the patent laws of this country. Parliament also rewarded the individuals who worked out this invention, which was a foreign invention brought to this country. In this manner might I go through all our manufactures ; indeed in no instance has any manufacture grown into importance in this country except by a series of costly experiments, and costly machinery, carried on for many years, in the hope of deriving benefit through grants of letters patent ; and no man, as far as my knowledge of manufactures goes, would have ventured upon those experiments had it not been from some such inducement as the reward offered by the patent law.

205. Could you give the Committee any idea of the cost which was incurred before Boulton and Watt's invention was brought successfully into practice ?

I believe, in the case of Boulton and Watt's engine, at least from 10,000*l.* to 20,000*l.*

20,000*l.* was expended before any thing like a large practical result was brought about. I have known, in the case of many inventions, hundreds, and in other cases thousands, of pounds have been spent before any practical operation took place. In the case of the printing machinery there is a striking instance of it. Cowper and Applegath's printing machinery succeeded Koenig's, and they expended a large sum of money before they attained partial success. Cowper and Applegath joined together; they were joint inventors of the most important machine which ever existed up to the last, which is the "Times" machinery, invented by Mr. Applegath. They had spent a large sum of money, I think some thousands, in bringing the machine to bear. They met positively to break up the machinery, in consequence of the want of success. They could not get good inking; wherever there was a dark line, it was repeated upon every page; wherever there was an insufficiency of ink, there was a repetition of a light line upon every page. They met with a view of destroying the whole of that machinery, when a happy thought struck one of the inventors—I think it was Mr. Cowper, but I am not quite sure, and he suggested, that if they would allow him a little while, he thought he should be able to remedy the defect. It was remedied, and the consequence was that it became a most efficient machine. Had there been no patent laws, I am perfectly certain that that machinery never would have existed; and I dare say some of your Lordships will remember when the "Times" paper came out, and they announced that they were then actually printing 4,000 an hour from a surface of type by one of these machines: they made as much of that number in those days as they have since made of printing double that number by Mr. Applegath's present machine. I unhesitatingly say that Mr. Applegath's machine never would have existed but for the protection, and the hope of reward, which is the result of the patent law.

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206. In all the cases which have been alluded to, though the patent which was obtained protected the parties from the use of their discovery by other parties, it did not protect them from having their invention set aside by a further invention of a still more complete character?

Decidedly not; all persons are subject to that; but I have not found, in the course of 29 years' experience, that that really takes place; they are open to it, unquestionably.

207. And they will incur that large expenditure with the notorious possibility before them of having their discovery, though patented, set aside by subsequent discoveries, which render theirs useless?

That is so; but happily for the mind of inventors, they have that degree of confidence in their own ability, that they feel they are capable of outstripping all competitors; in consequence of that, we get inventions; but if it were not for that, we should get none.

208. You say that the common feeling of all inventors is that of being extremely sanguine?

It is.

209. Do you not think that that feeling on the part of inventors would be sufficient to stimulate them, without the artificial stimulus of a patent?

There would be no inducement then.

210. There have been cases in which the practical monopoly of an invention granted by a patent has existed for the term of 28 years, have there not?

Thirty years, I think, in the case of Boulton and Watt; I believe the patent for the paper machine was extended to that term; and there have been two instances in modern times where they have had 28 years; Lord Dundonald's was one; and the blind gentleman (Mr. Mitchell), who invented the system of pile-driving upon which lighthouses are now constructed on sands, was the other.

211. Do you think that it would be wise to make it one of the conditions for obtaining a patent, that the party should show the length of time applied to the discovery and the quantity of capital expended?

No; on the contrary, the country has sometimes derived as much benefit from a happy thought as from a long-enduring inquiry and experiments.

212. You think that the length of time and the expenditure of capital are accidents, and not essential to the principle of a patent?

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Not

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Not to the principle of a discovery ; a discovery leads to such results very often ; though the thought may not necessarily lead to a large expenditure, it is generally the case ; but I do not think that that ought to be a condition.

213. Is not that one element of consideration on the part of the Privy Council in renewing a patent ?

It is an element with the Privy Council ; they take that matter into consideration ; I think the most important thing for them to look at, and for all parties indeed, is to see what will lead most to the advantage of the manufactures of this country.

214. In continuing a patent, is not the hardship previously suffered the main consideration ?

The merit of the invention is the first thing.

215. Does the merit of the invention take precedence of the loss and hardship sustained ?

I think they mix the whole question up together ; but the merit of the invention is first looked into, and in all their judgments it has been the prominent feature.

216. With respect to the expedition fees to various offices, what are those ?

There are no expedition fees ; the Lord Privy Seal and the Great Seal are the only instances where anything of the character of expedition fees are allowed ; with respect to the Great Seal, supposing we go in with documents which we want sealed, and there is no seal appointed, we have to pay for a private seal, and if the Lord Chancellor be out of town, we have to pay the expense of the journey to him ; it is the same with the Privy Seal and Signet Offices ; if we go in on Thursday too late for the ordinary business, and want to pass the next seal, we then must pay for extra despatch or for a private seal, or both.

217. What is the amount of those fees ?

Two guineas for a private seal, and some additional fees for extra despatch in the Signet Office and Privy Seal Office, which do not, however, amount to much.

218. Will you state what are the proceedings in the case of Scotch patents ?

In the case of a Scotch patent, we first apply by petition to Her Majesty ; Her Majesty refers the petition to the Lord Advocate of Scotland, who reports upon it in precisely the same way as the Attorney-general does in England ; the warrant upon that is made out, reciting the whole of the patent, and then it goes immediately through certain offices to be sealed, till it arrives at the Great Seal of Scotland.

219. Do you think it desirable that there should be a separate process for the three kingdoms ?

My own feeling is, that it is desirable that there should be ; it is only a portion of the patentees who ever take out patents for more than England ; there are some who never take them out for more than Scotland. I do not know whether that is the case in Ireland, but I believe it is. With regard to England, there are a great number of patents taken out which never would apply to Scotland ; therefore, my own feeling is, that it would be better to retain the present system as it is ; and, if you reduce the fees, to reduce each of them, having the power, if it be considered desirable, of granting all the patents in one, where the parties wish it, or granting all three separately ; I do not see much difference, the trouble is not materially different.

220. Independently of the fees, is not the expense increased to any one wishing to take out patents in the three countries ?

There are the agency fees.

221. Do you know what number of Irish patents are taken out ?

The Irish patents are few in comparison with the English.

222. Are they very expensive ?

Yes, they are very expensive ; the Attorney-general of Ireland has 31 *l.* 10 *s.* for doing that for which the Lord Advocate of Scotland or the Attorney-general in England has four guineas.

223. What,

223. What, in your opinion, would be the advantage or the disadvantage of a patent dating from the day of the application? *W. Carpmael, Esq.*

That requires a great deal of consideration; unless you can show me when the patent is to be completed, I will not undertake to say what would be the effect of dating it immediately; I see no desirableness in dating it immediately, or in its bearing date from the day of application, provided the time between the application and obtaining the patent is short.

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224. Do you approve of the provision in the Bill No. 2, with respect to a patent being sued out in three months?

No, I think that that is highly objectionable. If an inventor is to be allowed a period of three months to decide whether he will take out a patent or not, it would be very injurious to those who succeed him wishing to take out a patent immediately, and I think the provision would be highly prejudicial in whichever way you look at it. I cannot see any benefit to be derived from it, but I think it would create many difficulties.

225. Do you concur in the opinion which has been expressed, that great disadvantage arises at present from the want of a regular register, and full and complete indices of specifications?

I do not concur in that opinion, and for this reason: if you make an index equal to the whole contents of the specifications, then to those who have to read them, and to act upon them, it may be beneficial; but to have an index made by a party not thoroughly and exactly acquainted with the nature of the specification would only mislead, and I can give your Lordships an instance of that. We have publications at the present time in which the parties profess to give us abstracts of what is contained in patents, and I can only say this, that not one in twenty of those can be relied on; and I have known the greatest injury to arise out of parties relying upon those published documents, thinking that they contain the substance of, or the main features, or the whole of the features of the invention.

226. Would not a well-arranged index, which might be referred to under different heads, enable manufacturers to turn at once to the specification itself?

If you merely give a general statement that the specification is for improvements in the construction of the steam-engine, that is one thing; but if you add an index which shall state what the substance of the invention is, parties will rely upon that abstract, instead of going to the original; they do so now, and I am sure they would do so then, and the more so by reason of its being a public document; whereas those which are now issued are only issued for sale.

227. Those which are now issued are imperfect, are not they?

They are imperfect, as all abstracts will be, compared with the real document; an abstract will be good or bad, depending of course upon the capability of the individual to state that which he has read, according as he thoroughly knows or does not know the exact manufacture which he is then describing.

228. You think the disadvantage attending a good system of indices, which should be open to the public, would be that it would be improbable that such indices would be well drawn up?

I am quite clear that it never could be done; publish specifications if you like; but as to publishing the heads and substance of the invention, it is not in the mind of man to do it—I mean in a public office on a large scale, where there are 30 or 40 specifications in a month, for them to analyse, and to give the substance of.

229. You object to all abstracts or memorials of documents?

I do; give the whole of the specifications, and I should be delighted to see them published, but the cost would be great, and I think not to be justified.

230. You think a memorial of that kind only misleads?

I am sure it does.

231. Instead of leading to a correct knowledge of the original document, it tends to put you on the wrong scent?

It does; anything issuing from the Government would have more weight with the public than anything which is now issued by private individuals; the consequence would be that people would rely upon them, and any deficiency in them would be most serious and injurious.

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232. You think there is no means of obviating the great inconvenience of people wasting their talent and labour and money upon inventions which have been invented over and over again before?

After long experience, I do not find that inventors will look into a printed book or a written record to find out whether their supposed invention has appeared in any shape whatever; such is the confidence of inventors, that they believe it is impossible that anybody could ever have dreamt of that which they have discovered, or it would have been all over the world, and they should have known of it. Therefore, so far from finding that men are desirous of taking advantage of the means of knowledge what they have before them, I find that not one inventor out of 20, I may say out of 50, can be induced, when we hand them a list of what has been done before their own invention, to read the pre-existing specifications.

233. Is your description of the blind way in which inventors rush into inventions quite consistent with what you stated before, that it requires an artificial stimulus to induce them to invent at all?

I think it is; the invention might exist, but the bringing it to bear would be a totally different thing; an inventor's mind sees the existing state of things; he imagines he can improve that state of things; after a time he imagines that he has improved that state of things; he rushes to the Patent Office, and wants a patent for it, and it is very hard to induce that man to look into what has existed before. When he tells you his invention, you go into the matter with him; you point out that this has been done by A., and that has been done by B., and when he finds that the whole has been done, he is perfectly astounded; and when he is told that it failed, he can hardly believe it possible; but that is every day the work we have before us. I am quite sure that no indices which your Lordships' House might recommend in any Bill would ever be carried out for the practical benefit of the inventor. If all the specifications were published it would be at an enormous expense; but those professional men who, like myself, have to read them, and to steer between them for other inventors, would be exceedingly indebted to any public Board which should issue those documents; I mean if done immediately, because if they were not published for months, they would be comparatively useless.

234. Would not it be a most important advantage that you and other gentlemen who advise inventors upon these points should have those facilities given you?

I should be delighted to have specifications printed immediately; I could sit in Lincoln's Inn and read them; whereas now I am obliged to go to the Enrolment Office; but as to indices, I would not thank your Lordships for them at all; I am sure they would only mislead me, and they would mislead the public much more, because I should not often rely upon them; for the purpose of referring to specifications there are plenty of indices; if you go to the Great Seal Office there is an index; at my office there are indices, and so there are at others also.

235. Are there any authorized official indices?

No; but the title of every patent is published within a week of its being granted in various publications, and the consequence is, that people have only to take in those publications, or they may go to places where those publications are taken in, and refer to them.

236. If that be so, where would be the difficulty of making an authorized index?

The authorized index I understand is not to be an index merely of all patents that are granted, but it is to contain the substance of the specifications; if it is to be an index of the mere title of the inventions, there would be no difficulty in the world in getting up such an index.

237. The existing indices are not of any particular value, are they?

So far as my own estimation goes, they are of no great value, and if they existed to the fullest extent, I can only say that, from my experience of inventors, they would not read the several specifications to which they applied.

238. With regard to the present law as to the extension of patents to the colonies,

colonies, it is doubtful, is it not, whether the word "realm" comprises all the colonies or not? *W. Carmichael, Esq.*

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That is a question which has been raised in modern times by the Colonial Office and the Board of Trade, by reason of a letter from Mr. Macgregor; the object, I am informed, was to induce the Queen not to grant patents in the colonies; but I have never heard the Queen's right to grant patents in the colonies questioned.

239. Have you heard it questioned whether a patent issued for the united "realm" extends to all the colonies or not?

I never doubted that it did not extend to the colonies, unless the colonies were mentioned; if the colonies are mentioned in a patent, I have never doubted that it extends to the colonies.

240. Is it your opinion that it should extend to the colonies?

Unquestionably; I see no reason why the colonies should not have the benefit of the patent laws, as well as England.

241. Is it any benefit to the colonies to be obliged to pay a heavy tax?

I have no doubt it is the highest benefit to the colonies that they should have the advantage of the patent laws; I am sure neither the colonial people themselves, nor people externally of the colonies, would invent for their benefit if they did not hope to get something by doing so; and as the patentee always gets a very small proportion of the real benefit which accrues, the manufacturer getting the largest share, I think the patent laws of the highest importance to the colonies.

242. Is not it the case, for instance, with regard to the machine for extracting sugar, that the West Indians complain very much of the existence of patents in this country, which prevent their getting a very simple and cheap machine from Belgium or Prussia, the cost of the machine which they actually use being raised immensely by the patent right to it?

I know there has been a complaint by this very letter of Mr. Macgregor, but I know that there never was a more incorrect statement. The facts are these: A. is the inventor in this country of certain machinery for extracting the syrup from the crystalline portions of the sugar; the proprietors let it at the rate of 6*d.* a ton on the quantity produced; the colonial people acknowledge that the sale in this market is improved to the extent of 6*s.* a ton by the process; therefore the rental which the patentee asks is just one-twelfth, and they object to pay this small rental; what they wanted to do was this: the parties in the colonies bought some machines in Belgium to take over to the West India colonies to use there for this process, not intending to pay the patentee; but I cannot conceive that there is any propriety in permitting parties to go and get machinery surreptitiously made which is protected in this country; a sugar refiner in this country might, with equal propriety, have brought machines in from Belgium, and have expected to use them in the face of the patent.

243. In the way in which they state the case, it is not that they wished surreptitiously to get it, it is that the invention was a Belgian invention originally, and that the Belgian machine is to be sold cheap; but that because a patent has been obtained in this country, they are obliged to pay 6*d.* a ton for the use of it, which, compared with the advantage they derive, is a very heavy royalty.

The facts are not so. The invention was not a Belgian invention; the Belgian patent was not taken out till some considerable time after the English patent, and the parties who took out the Belgian patent were the parties who took the patent in England.

244. Would not the West Indians, supposing those circumstances to be correct, be the sufferers?

They would be sufferers to the extent of 6*d.* a ton for the use of that which the party has invented, and has no other means of getting remuneration, for that is one-twelfth of what the user benefits by the use of the patented machine.

245. Have not the same inventors taken out a patent in Cuba?

Yes. When this question was before the Board of Trade, I represented a gentleman in the colonies who had invented a most important process for improving the manufacture of rum, largely increasing the produce of any one estate, and improving the quality at the same time. That party took out a patent

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in this country in the ordinary way, including the colonies ; I wanted to know why that individual was not to be a patentee simply because he lived in the colonies. He was a colonial man, and had estates, and managed his estates, and yet, according to the views of modern times, he was to be shut out from obtaining any benefit from his invention, though he had greatly improved that manufacture.

246. Do you not think that in the colonies they ought to have their own separate patent laws, just the same as foreign countries have, so that a party might take out a separate patent there ?

That depends upon the legislatures there. They have the power of taking out patents at the present time.

247. In every colony ?
 Yes.

248. For that particular colony only ?
 For that colony only.

249. At present you may take out a patent here, including the colonies ?
 Yes.

250. Does not that appear a kind of injustice ?

I think not ; I do not see any injustice in it ; you might as well say, in the case of any person taking out a patent in London, it should not over-ride Manchester or Birmingham.

251. You do not think there is any good ground for the colonies to complain of a patent taken out here over-riding them ?

They have the same rights and privileges ; supposing a party in the colonies invents an improvement in the manufacture of spirits, that party takes out his patent, which over-rides the whole of England.

252. Under those circumstances, do not you think it would be advantageous that there should be a separate power ?

They have not the power of taking it out in the colonies direct ; they must take it out in England, which over-rides the whole ; both parties have to take it out in England, the same as a Scotchman or a Manchester man has to take out a patent in London.

253. Manchester has no separate legislature ?
 No.

254. Do not you think colonial patents should be left to the control of the local legislatures in the colonies ?

I do not know why they should not have the power of granting them, but I do not think it ought to be left entirely to them ; as long as their legislature is dependent upon England, and the laws of England, I see no reason for placing them in a different position from Ireland or Scotland.

255. When you give an independent local legislature, you expect that independent local legislature to have the same privileges in the colony which the Imperial Legislature here has, as far as regards this country ?

The colonies never have been in a state of legislative separation from this country yet ; when they have arrived at that, and become separate countries, if they are self-governed, they would, if actually separated, have that privilege amongst the rest ; but take the case of two islands lying close together, a resident in one island may be the inventor of one thing, and another man residing in another island may be the inventor of another. Perhaps the party who was resident in the one island might get a patent for his invention in that island, and the other party, in another island, be refused a patent for his mode of doing the same thing. The consequence would be, that the islands would get into what may be termed a patent antagonism. Many of the West India Islands are comparatively close together, and that would be the state of things, I have no doubt, in a short time ; they would get into that kind of antagonism.

256. May they not now get into such a state of antagonism with the Imperial Legislature ?

No ; patents are granted to a petitioner, unless other parties can show a similar invention ;

invention ; as long as they show no invention, the party may get his protection, *W. Carpmael, Esq.* and they cannot get into antagonism in that way.

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257. Might not a patent be refused in this country, but granted in the colonies?

No, I should say not ; the usual custom in applying for a colonial patent is to apply for it in England ; the colonial government have the power of passing a legislative Act to grant to A. B. a patent in the colonies, but that must come to England to be ratified ; a contest might possibly arise, but it is not very likely.

258. In that contest, which is to prevail ?

I should say the prerogative of the Crown ought to prevail.

259. You stated just now, that you thought that only a trifling modification was required in the working of the present law for passing patents ; that implies, that you do not approve of the two Bills which are now before the Committee ?

In their present form I do not approve of either of them.

260. Will you state the principal objections which you entertain to them ?

There are so many principles in the Bills that it would almost require each section or clause to be discussed in succession ; almost every one of the clauses contains a new principle, proposed to be brought to bear upon the practice of obtaining patents.

261. Do you object equally to both Bills ?

In their present form ; the first point of objection is with respect to the appointment of Commissioners ; I am not aware what the requirements for any such Commissioners are according to the second Bill ; the patent is to originate with a petition, and the petitioner is to go to the Crown for a reference to the Attorney-general, upon which the petition is to come back to the Attorney-general for report, which is to go back to the Crown for the warrant, in precisely the same way as it now does ; the Lord Chancellor is to have the same power of control as he heretofore has had, and now has ; but a number of Commissioners are to be appointed for the purpose of appointing officers and making rules ; those rules must apply to the passing of a patent between the stage of the original petition and the getting to the Lord Chancellor, because the Lord Chancellor's privileges are to be retained. With some extent of experience in this matter as to the rules which are made for the passing of patents, I should say a rule does not emanate or a change take place once in several years. I want to know what all these Commissioners and officers to be appointed under the Commission are for ; I cannot understand it.

262. You do not see any necessity for any new rules being drawn up ?

I conceive that rules ought to be made from time to time as the requirements of the case may demand ; but the requirement for rules occurs so seldom, that I do not see any possible reason for this phalanx of Commissioners and officers. The Attorney-general has hitherto had the entire power of directing every thing that should take place up to the time of its going before the Lord Chancellor. The Crown, by its warrant, directs the Attorney-general to make such provisions as he may consider necessary to support the case, and the Attorney-general from the earliest period to the present time has made the necessary rules for carrying the grant through in the best way, according to the judgment of the Attorney and Solicitor-general for the time being. The changes of the rules which have taken place do not average one in several years, and the amount of such requirements under any state of things is so small, that I cannot conceive the possibility of requiring all these official powers in order to do so small an act ; I do not know what is contemplated. The Bill, supposing it were passed into a law, actually re-enacts the present practice.

263. You are now speaking of the necessity for rules under the present system. If any change in the system were made, such as the appointment of certain persons of scientific attainments to act as assessors to the Attorney-general, would not such a change require certain rules to be made ?

If that is contemplated under this Bill, and yet the Bill is perfectly silent upon it, I can only say that it is too serious a matter to be enacted in the dark, because the Attorney and Solicitor-general have at the present time power to

W. Carpmael, Esq. call in men of science whenever they feel that their own science is deficient in the particular case.

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264. That is not done now, is it?

Constantly. Only last month a case arose in which the Attorney-general, Sir Alexander Cockburn, did not feel that he was sufficiently informed on a nice chemical question, and he called in the assistance of Professor Graham; that has been done from the earliest period of my memory; but if you once appoint assessors under the Act, then the Attorney-general will do no business at all, but the assessors will do the whole; therefore, if this is in any way to cover that provision, I entertain the strongest objection to the whole section; I object to any provision which would give to the Chancellor, and a number of officers, with the Attorney-general, the power of appointing other officers who should relieve the Attorney and Solicitor-general from doing their duty; I entertain a very strong feeling upon that subject.

265. Do you think that the appointment of those assessors would relieve the Attorney-general from all responsibility?

Not only from responsibility, but the Attorney and Solicitor-general would at once hand over the whole of the business to those parties, and I am quite sure we should not benefit, and inventors would not benefit by having any such officers appointed.

266. Is that the opinion of inventors themselves generally?

I believe it is in the case of every one who understands anything about what is really the state of the case.

267. Have you had any experience in the working of the Extension of Designs Act passed this year?

Yes.

268. Do you object to the manner in which the business is now carried on under that Act?

It has given infinitely more trouble than any one thing which has been done for a very long time.

269. In what respect?

The number of certificates and instruments which are necessary, and the difficulty of getting any returns of anything, so as to know how the business is to be done; for instance, the parties appointed considered it necessary that they should see the machinery in the place. Now, so far as my judgment goes, none of it ought to have been required to be there at all, because that was one step to publication previous to any security; it is true they said they might have some evidence of what the party intended, but what the nature of that evidence was, we were not enlightened on at all; I can only say that there has been great difficulty; in a case of that kind, where there was such a drive among the officers, it was very difficult to get any assistance, although no persons could be more polite than the officers were; we had first to get a certificate that the thing was in the Exhibition.

270. That was incident to the circumstances, was it not?

The whole case is peculiar; so that I do not think it bears upon the question of the patent law at all.

271. Only so far that you may possibly derive from it experience, which may suggest hints for the alteration of the patent law?

The working out of that law has not hinted anything, to my mind, which would improve the patent law. One section of the Bill before the Committee goes to establish an analogous state of things, and so far as that goes, I should say that this section would be most pernicious; I allude to the section giving to the party the power of depositing, upon paying the sum of 2*l.*, a description of an invention.

272. What is your objection to that section?

The effect will be this: there is to be no investigation of whether he is the first, the true inventor; supposing he were a servant or a person into whose hands an inventor had put an invention, for the purpose of getting it into a practical form, the giving to that party the power of depositing a document of this kind may have a very pernicious effect upon the real and first inventor; what benefit is expected from that I cannot say; the only effect will be to put the parties to great expense; it requires also that the document enrolled should be the absolute

absolute document upon which is to be founded the future patent. Having had some experience in drawing specifications, I may say that inventions, when first proposed, are in so crude a state that no man ought to be bound to a document which is drawn up upon the first suggestion of the idea; it would be the most destructive thing to an inventor's interests that could possibly be.

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273. Does not this clause give him a provisional protection during which he can more at leisure work out his design?

No; because he is tied to the document he has deposited, therefore he cannot work it out.

274. It is to be optional with him whether he will seek such provisional registration or not?

Clearly.

275. Therefore it would be only in a case where his invention was matured that the inventor would think of registering, as he is to be bound by the specification which he deposits?

Matured inventions are such things as one seldom hears of when a party first begins to contemplate the idea of securing them; you ought always in these cases to consider that the honest inventor is the party who ought to obtain a profit; but this would lead to dishonest parties gaining an advantage.

276. Would not the rights of the true inventor be discovered afterwards?

Ultimately they would; but see the consequences: you have the deposited document there, but you have not pointed out what would be the effect of the document upon the true inventor, nor what would be the effect of using the invention by others consequent on seeing the invention.

277. Where there is a doubt as to who was the original inventor, would not it be advantageous that there should be some provisional protection of this nature?

No, this does not act in that way; a party, without any inquiry, gets a document, which to the world appears to have all the validity and substance of a patent; he can go and get money upon it as if he had made a substantive invention; it would be only used as a means of getting money.

278. You think there would be no advantage conferred upon a poor inventor who has not the means of obtaining a patent, by enabling him to secure provisional registration, which would only last six months, under which he could obtain the means of perfecting his invention through the intervention of men of capital?

So far as my own knowledge goes, it would be in no way beneficial; I am quite sure, practically speaking, there is no occasion for it.

279. Because you think the case is met by a poor inventor putting himself in the hands of a professional man, who will find capital for him if he thinks his invention is worth anything?

So far as my knowledge goes, there is no invention at the present time which requires capital to work it out; I stated that upon the former occasion; I state so broadly and distinctly again; I have had many things brought to me in consequence of what I stated upon that occasion, and at the present moment I know of no invention which is of any value which wants capital to carry it out.

280. Would not a poor inventor of a valuable invention be in a very different position as to the bargain he could make with a capitalist, if he were at liberty to go and make his invention known under the protection of provisional registration to the capitalist himself, instead of having to place his secret in the possession of a professional man, who would mediate between him and the capitalist?

Not the slightest; on the contrary, if a poor inventor went and deposited a document of this kind, such as he would draw, I believe, in nineteen cases out of twenty, or ninety-nine cases out of a hundred, the party having money, the manufacturer would not be satisfied with the document, would not like to bring a lawsuit, and would not advance a shilling upon it. To bring capital to bear upon an invention assumes this as a fact, that the thing which is introduced to the capitalist is such as can be worked out with benefit, and can be well secured by a patent. If the party, under bad advice, or no advice at all, enrolls such a document as he would himself prepare, assuming him to resort to no professional

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advice, but to do it himself, I am sure he would very rarely indeed meet with the assistance he wanted.

281. Is not there a great difference between his going to a professional adviser to draw out a proper specification, and going to him to negotiate with a capitalist as to the means of bringing the invention to bear?

It would make no difference; the capitalist would look at the pros and cons. He would prefer in all cases to do so before any document legally binding the inventor had been entered upon. I am now speaking with a great degree of confidence, because I have had experience in so many of these cases, and because I never take one shilling on one side or the other when I introduce capital to an invention, or an invention to capital; I speak the more confidently from having no interest in the matter.

282. Surely it appears contrary to the usual course of human dealings that the inventor, who is introduced to a single capitalist, and obliged to develop his secret to him, should stand upon such favourable ground as if he could go to the whole world and ask them to take up his specification?

The very circumstance of his hawking it about would prejudice his position. If one manufacturer heard that he had taken it to another, in all probability that second one would not have anything to do with it; I assume that there is merit in the invention. If you showed it to one manufacturer, and a second manufacturer knew that you had shown it to his neighbour, in all probability he would pay no attention to it at all. If you take any two Manchester manufacturers, or two Birmingham manufacturers, you will find that there is that jealousy between them that if one knew that another had looked at the thing and paid no attention to it, in all probability he would not be induced to look at it.

283. Would not the man be better off who has the power of going to twenty capitalists, than the man who is confined to one?

I should say no, if he is first bound to deposit a document which ties him up for ever.

284. You think the binding nature of the document would prevent him improving his specification?

It is destructive to it; it assumes a state of facts which can exist in such few cases that you can hardly conceive them.

285. Supposing the case of a person who has completely perfected his invention, and there is no further alteration or improvement to be made in it, there would be no more difficulty in his depositing that specification in the first case than in any subsequent case?

Certainly not; but you assume that that man can draw his specification complete, and deposit it complete; he then goes and shows it to the manufacturer; in so doing, he is in precisely the same condition as if he went and showed it to the manufacturer now; he has got an apparent security, it is true.

286. Supposing a case where a person has completed his invention, and he has nothing further to add to it; the deposit of the specification would be as easy then, in order to obtain provisional registration, as it would be if he were going to take out letters patent?

I say that that would be the case; there would then be a complete document, assuming that that state of things existed; I say that a man so circumstanced would not be in a better condition to deal with the manufacturer of a particular article than if he went to him directly in the first instance.

287. He would go without any protection at all, in the first instance?
 He would.

288. Is a man as well off when he goes without protection as when he goes with protection?

I think he is.

289. What then becomes of the benefit of the patent law?

He gets a protection afterwards; and it is for the protection, in either case that the man pays his money.

290. In both cases, he gets protection afterwards; but by this section he would get provisional protection for a certain time previously, which does not prevent

prevent his getting full protection afterwards; he has all which the other man has, and he has so much over and above?

I say he would not treat with the manufacturer under better terms; you assume that the manufacturer to whom he is introduced, when without protection, will or may make a fraudulent use of the communication. There are two things which bar the possibility or probability of that; a party introducing an inventor to a manufacturer would introduce him by reason of his respectability; you must then consider that the manufacturer, having been made acquainted with the secret, becomes partly interested in protecting it, and giving the inventor the best assistance he can to protect it if he sees his way to carry it out. If, on the other hand, in looking at it, he sees that it is not satisfactory, that it is not a matter which accords with his views, he declines it. In order to damage the inventor who has so gone to him, this man must perjure himself to get a patent; or in revealing it, he would have to compete with his brother manufacturers and competitors in the trade, because they would become possessed of it as well as himself; therefore there is no interest in a manufacturer to make a fraudulent use of the communication which is made to him. I am giving your Lordships the result of the experience of years, the number of persons whom I have introduced to manufacturers having been very great, and I know that inventors would not have treated, under better circumstances, with manufacturers, if they had had the patent itself in their hands. Further, I must say, that not only would the benefit of this provision be small, but the working of it would be pernicious. Supposing that I invent something, and communicate it to a party who makes the thing; he goes, and without any investigation, deposits a description of the thing with the Registrar; he gets that which is apparently a legal protection; with that legal protection he goes among the manufacturers, and takes money from them in small sums, with a promise that as soon as he has secured his patent, by getting those small sums together, he will grant them a license. What am I, the inventor, to do under those circumstances? I am giving to your Lordships cases of which great numbers have taken place under the Registration Act, in the manner I am putting it to your Lordships.

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291. May not a servant publish the secret of an inventor in the same way?

In that case there is no inducement to commit a fraud, but here is an inducement offered to commit a fraud. Then, in reference to this clause, nothing is said as to what is to become of this document if it is never proceeded with.

292. What is the character of the operation which takes place under the Registration Act?

The operation of the Registration Act is pernicious to the highest extent, on the very grounds I have now stated.

293. It is probably from your experience on that subject that you draw the conclusion you have now mentioned?

Yes, it is the results of that Act which bring my mind to the conviction which I have stated.

294. Are there any other principal points in the Bill before the Committee to which you can refer?

With respect to the provisions as to the patent being sealed on the day of the original application, the working out of that, according to anything which is contained in this Bill, would be seriously objectionable. Almost every section, assuming this were an Act of Parliament, and we had to work it out, would present to us great difficulty. I have spoken of the Commissioners who are here proposed to be appointed; my own opinion is, that the Attorney and Solicitor-general are perfectly capable of carrying out that portion of the duty which is now left to them. I do not think it is possible to mend the law as regards their department of the subject at all. I think they ought to have the fullest power, under the direction of the Crown, which can be possibly given them; it never has been found to be prejudicial up to the present time, and therefore I cannot see that there would be any advantage in putting Commissioners over their heads. The system has hitherto worked admirably; they are always the best authorities, by their practice, on these subjects while they are the law officers of the Crown; they become eventually the best judges on all subjects connected with patents. My own feeling is, that you never ought to have any scientific men appointed as

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your Lordship proposes to appoint, but you ought to permit the Attorney or Solicitor-general to call them in in any special cases where they require them, as they always have done. In a multitude of cases they require no such assistance; they bring their own minds to bear upon the subject, and they decide well. No doubt there are cases in which there are apparent similarities, or apparent differences, to the eye of an unpractised man; but when they are brought before a practical man, or a man thoroughly versed in these matters, those apparent differences are seen to be identical, or the elements of those apparent similarities are dispersed, or there is seen to be no similarity whatever.

295. The parties whom the Attorney-general calls to his assistance are not called in to decide upon the matter, but they are simply called in to give an opinion?

Yes; when two parties come before the Attorney-general, the petitioner goes in to him first, and explains to the Attorney-general the exact nature of the invention; he having left the Attorney-general, the opponent then goes in and does the same, and the Attorney-general has thus the whole matter before him; if he feels any difficulty, he calls in some one to whom he can mention the secrets of both parties; he says to the parties, I feel a difficulty, I should like to call in Professor Faraday, or Professor Graham, or Professor Brande; I myself have often been called in by different Attorneys-general to assist them in matters of this kind; I have gone through the matter with the Attorney-general when I have been called in, and pointed out the distinction, if distinction there were, and then upon those explanations the Attorney-general has founded his judgment, he being the acting officer; but if you place me or anybody else with the Attorney-general as assessor, I should do the work, and the Attorney-general's mind would no longer be given to the subject.

296. The Attorney-general may now call in the person who is most competent to give him an opinion upon the particular case before him; whereas in the case proposed by the Bill, unless you appointed an almost unlimited number, you never could be sure of having the opinion of the man who would be most qualified to give one on any particular case?

That is so; supposing Watt were now applying for his patent, and you called in Bramah or Smeaton, both those men would be dead against the patent; if you had called in Sir Humphrey Davy at the time the gas question was considered, he would have said it was perfectly preposterous to imagine that it could ever be carried out; from the time of Sir John Copley (who was the first Attorney-general before whom I practised) up to the present time, I know it has been the practice, in all difficult cases, for Attorneys-general to call in to their assistance the men best qualified to afford them information upon the particular subject which was before them.

297. On many questions would not the Attorney-general have certainly called in Sir Humphrey Davy?

That would be only in the case of apparent similarities; if he had called in Sir Humphrey Davy, he would have pointed out the similarity or dissimilarity with perfect accuracy, though he might have doubted the practicability of the plan.

298. You appear to assume that the scientific persons proposed to be appointed under the Attorney-general for this purpose are to decide upon the merits of the invention; whereas the real proposition is that the scientific persons thus consulted should merely report to the Attorney-general upon the facts of the case, leaving the matter ultimately to his judgment?

That would lead to precisely the same state of things; the Attorney-general would lean upon their judgment; whereas now nothing can be better than the whole system. The Attorney and Solicitor-general are, of course, generally men of the first eminence; they are open to take the first seat upon the Bench which may offer; we had the best guarantee, therefore, for their capability, and if there is any doubt upon their minds upon any matter of fact, they have the power of calling in assistance. When we go before the Attorney-general, supposing I am representing the petitioner for a patent for improvements in machinery for spinning, for instance, I tell the Attorney-general what is the pre-existing state of spinning machinery, and the point upon which our invention turns, and upon which we intend to improve it. I bring the Attorney-general information up to the state of the manufacture, and I bring his mind to a consideration of the exact point

point with which we are dealing. The opposing party comes in and puts it upon the same ground; he mentions the difficulties to be overcome, and how he proposes to obviate them; if the Attorney-general does not see his way clearly to a conclusion upon some matters of fact or of science, he calls in assistance; but if he sees, as he does in the multitude of cases, that the inventions are totally separate and distinct the one from the other, that is sufficient, and he decides to allow the petitioner's patent to go on.

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299. You do not, in fact, plead the case before the Attorney-general, but you merely instruct him?

Just so; in order to get our patent, we are obliged to circumscribe the boundary line, so that the Attorney-general's mind may not, by a large proposition, be led to suppose that the opposing party is nearer to us than he really is. If your Lordships were to examine either the present Attorney-general, or some of those persons who have been Attorneys-general, you would find that that is the case. The present Lord Chancellor, Lord Cranworth, Lord Campbell, the Lord Chief Justice of the Common Pleas, and the Lord Chief Baron, have all filled that office, and they would inform your Lordships as to the mode in which they have proceeded, and would also give your Lordships the reasons for their mode of acting, which I cannot tell you. I am perfectly certain that the Judges who have been Attorneys-general, when they come to try patent causes, are greatly superior to Judges who have not filled the office of Attorney-general; I conceive that one of the best things with respect to the patent law is the having the Attorney or Solicitor-general as the Officer or Judge representing the Queen, and is one great means of securing efficient Judges on subjects of the kind in future.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Friday next,
Twelve o'clock.

Die Veneris, 9^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

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WILLIAM CARPMAEL, Esquire, is called in, and further examined as follows :

300. YOU were stating, when you were last examined, some of your objections to the Bill, No. 2 ; will you proceed with that statement ?

The first thing I stated was with reference to my not seeing any necessity for a Commission of the kind proposed, because I cannot understand for what expected benefit it is to be established. Having stated that, I will now go to the second section of the Bill, which points out the powers of the Commissioners ; one of those powers is this : “ for determining what conditions such letters patent shall be granted subject to.” It appears to me that that is taking away a portion of the prerogative of the Crown, and making the Crown merely to come in to sign documents which have been prepared and issued without any direction from the Crown. The present state of things is this : the Crown is the grantor of letters patent, and it directs the Attorney-general for the time being to insert such conditions in the grant as may make the will of the Crown thoroughly understood, and such as will carry it out. I think this provision is objectionable ; and I do not see any reason for making the Crown more like the Secretary of State now is, than the Crown itself, or that it should have, so to speak, to countersign documents prepared under the direction of another, and that other not having been directed by the Crown.

301. Do you see any necessity for the documents going to the Secretary of State at all ?

I think there is a necessity. I think the Crown ought to be the grantor ; and without going to the Secretary of State, I do not know that there is any other office through which it could pass. According to the ordinary custom, from, I believe, the very earliest period, none but the Secretary of State can hand a document to the Queen to be signed, and the Secretary of State is made responsible for handing it to the Crown, by countersigning it under the command of Her Majesty.

302. The discretion, as respects the advice given to Her Majesty to sign, rests entirely with the Attorney-general and the Lord Chancellor at present ?

The legal portion of it rests with the Attorney-general and the Lord Chancellor.

303. Does the Secretary of State exercise any discretion upon the subject ?

I think not, generally ; but if the Secretary of State saw any objection to a grant he would interfere, and would take the opinion, probably, of the Attorney-general or the Lord Chancellor upon it. We have had documents go to the Crown, in which errors have been discovered after the Crown has signed them.

304. Detected in the Home Office ?

Subsequently to the document being in the Home Office. Then we have gone to the Secretary of State ; the Secretary of State, on seeing the propriety of it, has endorsed the document, and obtained Her Majesty's signature to the endorsement. There is, therefore, a discretion with the Home Secretary of

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State, or with whatever Secretary of State may be acting for the time being in the absence of the Home Secretary of State. I do not see any necessity for these being altered, unless the whole system require it. As the system is, by this Bill, to remain in substance the same up to that point, I see no necessity for the alteration. Then, I think, the next proposition of this section is highly objectionable. The Commissioners are to have the power of making rules "concerning the manner and form in which specifications, disclaimers and memoranda of alterations" shall be prepared and written. Now it would be impossible to lay down any rules for drawing a specification, because every specification depends upon the nature of the particular manufacture to which it relates; and to make parties who draw specifications conform to rules in matters which scarcely can be said to be subject to any rules, would be placing a difficulty upon the inventor which might go materially to destroy his patent.

305. Is there at present no manner or form at all?

None at all; the law itself requires that the patentee shall describe and explain in what manner the invention is to be performed, so that workmen shall work from it. The law requires that the patentee shall define within what boundary his invention extends, otherwise the patent could not have a construction put upon it by the Judges when it came before them, therefore I cannot at all conceive the object of those words; I do not know the object of putting them into the Bill.

306. Would you go so far as to put it in the negative, that the Commissioners shall have no power?

I think it is best left as it is.

307. You say that the Commissioners can lay down no rules whatever upon such a subject?

Not beneficially, I think.

308. Then you would not object to saying that they should not have the power of laying down any rules whatever?

I do not think there requires any enactment at all. If your Lordship looked at the conditions of the patent and saw what the inventor had to do, I think your Lordship would see my objection to it immediately. A patentee is required, within a certain limited period, to enrol a full description of his invention. If he were tied down to rules, he must, whether the subject-matter were capable of fulfilling the rules or not, comply with those rules; the absence of complying with them would be absolutely destructive of his patent, however difficult and however impossible the falling in with those rules might be; therefore I do not see any object in making an enactment where none is called for.

309. Will you explain how it would be destructive of his patent?

Supposing you made an absolute rule that a man should follow such and such a systematic arrangement of his specification if the subject-matter would not admit of it, the absence to fulfil that rule (the condition being that he should fulfil that rule) would be destructive of the patent; the patent would be void for not fulfilling the conditions.

310. Are the Committee to understand you that there is no manner of form in which specifications and disclaimers are to be written?

None whatever; and no two men would describe the same invention in the same manner, and in the same order. If your Lordships could give me any form which has been suggested as the inducement for putting this into the Bill, I should be ready to test it by bringing specifications, and showing your Lordships, possibly, that it could not be done. I should conceive myself hampered in drawing specifications by rules requiring me to construct my specification within those rules. I can conceive that I should fail to do it, or constructively the Courts might consider that I had failed to do it, and my patent would be bad by reason of my not fulfilling those rules, though I might have done every thing that was beneficial for the public in giving the best description possible of the invention I was describing.

311. What is your next objection?

I will go on to the fourth section, which requires that the party petitioning should deposit with the Secretary of State a description of the invention with the petition:

petition: I do not conceive that there is any possible utility in that; it is only putting a series of officers into possession of the secret of the inventor before any security has been obtained, and not only putting officers into possession of the secret, but any want of care in preserving the documents would be putting any body into whose hands those deposit papers may come into possession of secrets which ought to be preserved till some security is given to the inventors. I cannot conceive any benefit to arise from my taking a description, with my petition, to the Secretary of State, and then going the following day and receiving back my petition, and that other document which was lodged with it (namely, the description of the invention), to take to the Attorney-general's, for this document only becomes operative after it gets to the Attorney-general, and not with the Secretary of State.

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312. At what stage is the description now required by the late order of the Attorney-general?

Immediately previous to the granting of his report; and your Lordship will see the inconvenience which would arise in taking it to the Secretary of State. Up to the time that we go before the Attorney-general, should the contents of any document leak out, it would put an opponent, if it should happen by any possibility to get into his hands (and any body getting hold of this document might become an opponent), in possession of knowledge derived from the petitioner's document, and there can be no benefit in that. Suppose a patent is not opposed, the Attorney-general, before he hands us our report, requires us to deposit with him a description of our invention to his satisfaction, and a very proper rule it is. If we are opposed, then we go before the Attorney-general, and we explain to him the nature of our invention, and then he requires us to write it down, or to have it in writing when we come; he tests this description with the opponent's statement, and then decides upon the question. If the inventions are not alike, which is generally the case, he then and there seals up that document which the petitioner has handed in, and that is the deposit paper which he holds in the progress of the patent.

313. In that case the opposing party is not cognizant of the invention for which you claim a patent?

No.

314. Consequently he is obliged to proceed in the dark, and to make his opposition without knowing whether he has grounds for it or not?

No doubt of it.

315. In the case supposed by you, in which the document becomes public, your contrivance becomes known to another party, and that other party would then know whether he had sufficient grounds for opposition; he would be aware of the nature of the invention which he thought proper to oppose?

Yes.

316. Under this Bill the opposing party could not properly have any knowledge of the invention?

No.

317. The party applying for a patent would, by this Bill, be protected from the invention of any other applicant of a later date, would he not?

Not necessarily so.

318. Will you explain how that is?

The Bill only provides that the patent may bear date from the day of application, if the circumstances under which it is labouring induce the Attorney-general to report that that should be so; and further, if the Lord Chancellor also, on receiving that report of the Attorney-general, think it desirable that it should bear date on the day of the petition.

319. In the event of its being enacted positively that the patent should bear that date, he would be secure?

He would be imaginarily secure; but you will find that there is nothing more serious than to let out the secret of a man before he is amply and absolutely protected, because in by far the larger number of cases indeed we have scarcely ever a patent in Court in which there has not been some approach to it by other parties who have pursued something like the same invention, or something like

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the same manufacture, which, not having proved successful, they have abandoned, and there the thing has rested. A new party comes forward; he has matured and completed the invention; he applies for a patent, and that patent ought to be secured to him before the opponent is informed of the action of the petitioner's invention, otherwise the party who had abandoned it would, if he should be informed of what the petitioner is doing, come with strong powers to oppose that individual, and might easily turn his failure into success, and thus unfairly put him in a position to ask the Attorney-general not to grant the patent to the petitioner unless the opponent have part of such patent. I cannot see any propriety in a man's invention being divulged to his opponent before he has a thorough protection for that invention.

320. The objections which an opponent would make before the Attorney-general or the Lord Chancellor must be such as to show that it is not really an original invention?

That the opposing party had done it before, or was doing it at the time, and that therefore he ought to come in, and be a participator in the advantages of the patent.

321. That is precisely the objection which, after completion of the patent, would be taken before a court of law in trying the validity of the patent?

At that time there is a complete specification, and a thorough description of a practical invention; but in the commencement of a patent which this Bill is here contemplating, the invention must necessarily be crude, and the document which is before the Attorney-general must necessarily be crude also, and therefore I say that the man has not got the thorough protection at that early period which would place him in safety.

322. The Committee understand it to be the result of your experience, that in a great number of cases where an invention is made, there have been a great many concurrent efforts coming very close upon that invention, but not actually reaching it?

Yes.

323. In those cases is not the early deposit of the description of the invention rather a protection to the party; otherwise may not the persons who come so close upon his invention, in many cases happen to light upon the same invention while the patent is incomplete?

It very seldom happens that they light upon it at a time when the patent is incomplete, and if they do attain success while the patent is incomplete, they come forward and oppose, and then the Attorney-general requires the patent to be taken out in their joint names, or for their joint benefit.

324. And does not that show that the early deposit of the description is really a protection to the person who is the first inventor?

No; because the petitioner would be in a like position. Suppose to-day I deposited a description of the sort required by this Bill; and suppose a week hence, previous to the completion of my patent, any party came in and satisfied the Attorney-general that he had honestly arrived at the same result; the Attorney-general, as the practice now exists, and under this Bill, would call upon me to join, or would sanction our going on for a patent for our joint interest; therefore the deposit of the paper referred to here would not alter that state of things, though it might have the effect of putting an opponent in possession of such materials as to enable him to come down and oppose effectually; whereas not knowing what the contents of that document are, he would come down with only that knowledge that he had arrived at by his own efforts, and the Attorney-general would say, you have not arrived at that which the other party has arrived at, and the successful inventor would get the patent; whereas if the opponent came with more knowledge, the original applicant would lose one-half of the patent by having to join with the other party.

325. You appear to be afraid that the original depositor, who is entitled, as being the first inventor, to the benefit of the patent, would be injured?

Under certain circumstances.

326. Under the circumstances proposed by this Bill?

Yes.

327. And

327. And the reason why you think he would be injured is, because the opposing party, after he had deposited his plan, and while it was in a crude state, would come before the Attorney-general and be able to put in another plan similar to the scheme originally deposited, but still you say, wanting in something to show that he had obtained equal success ; is not that your position ?

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Not exactly. What I say is this : supposing an opponent comes without any knowledge of the invention of the petitioner, he honestly and properly describes to the Attorney-general all that he, the opponent, has done. But supposing that he, in addition to what he had done, also knew what the other party was about to do or had done, he could so convert his want of success into a similarity to that which the original applicant had done, as to induce the Attorney-general to make it a joint grant in place of a single one.

328. Do you mean that the opponent would derive information from the previously deposited plan of the first deposition ?

If he got possession of it, certainly.

329. By this Bill he does not get possession of it ?

You render him more likely to get possession of it.

330. I presume you think it desirable, that where there is good ground for opposition, that opposition should be effectual ?

No doubt of it.

331. Does not it appear to you, that without a knowledge of the nature and the details of the invention upon which a patent is granted, a party conceiving he has made a similar invention must be unable to make good his objection ; ought he not to know precisely what it is that he is called on to object to ?

Quite the reverse ; suppose A. has made an improvement in the steam-engine, he goes before the Attorney-general and describes exactly what that is ; and suppose, also, that an opponent comes, and he really has made the same invention, he can describe nothing else but the same thing.

332. Suppose he has made that and some other ?

Then he will describe that and some other.

333. He describes the very invention that he has made ?

No doubt of it ; and suppose he has only made something approaching it, and has not made the identical thing, he may, if he get information, build his unsuccessful into the other's successful state of things.

334. Supposing he has made the identical thing which the other has made ?

Then he will describe it.

335. If he has made the identical improvement which the other is applying for a patent for, what inconvenience can there be in his having a knowledge that that is the contrivance he is coming to oppose ?

In the first place, he can have no benefit if he has made the same thing, because he would describe it ; but if he has not made the same thing, the party he is opposing may be damaged by his building something like it into that which the petitioner has made.

336. How is he to be led to the knowledge, that that is the particular principle which is introduced, or the particular improvement which he has come there to oppose ?

Both parties come to describe their improvements ; if they have both made the same thing, the Attorney-general will tell them so ; if they honestly come, and one has got what the other has not, the Attorney-general will tell them so.

337. Your objection rests upon the apprehension, that the knowledge of the specific invention may be improperly used by a contending inventor not having made identically the same invention, but converting his invention into the identical one, by means of the knowledge which he so obtains ?

Just so ; I have at all times been a great advocate for having a deposit paper of this kind, so as to tie the parties to it, but I do not think that deposit should be made as is here proposed.

338. Will you state your next objection to the provisions of the Bill ?

The next objection is with reference to the 5th section ; this contemplates
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what one of your Lordships was just suggesting, namely, that part of the difficulties which I have been stating would be overcome by the circumstance of the patent bearing date on the day of the petition. This section in the Bill depends upon the recommendation of the Attorney-general, and the concurrence (in that recommendation) of the Lord Chancellor. I can conceive a great many difficulties which would grow out of that section; either the patent should bear date as of the day of the original application, or else it ought to bear date the day of the sealing, when it naturally arrives there; otherwise there will always be parties contending before the Attorney-general, to induce him to let it bear date a particular day, while there would be an attempt on the part of the opponents to prevent it where contending applications come in for a like invention; for instance, improvements in spinning, improvements in the steam-engine, improvements in the manufacture of sugar; I object to the uncertainty of this, and if there is to be any legislation upon it, I think it ought to be made certain.

339. In your opinion, in which way ought it to be made more certain?

My own opinion is, that it should arrive in its own natural course, because the proposal to make the patent bear date on the day of the application, opens to parties an immense deal of litigation before the Lord Chancellor, upon the subject of whether the patent should be sealed or not on a particular day.

340. How has it that effect?

At this period several parties come in together as applicants; for instance, two applications may come in on the same day, with similar titles, though ultimately they turn out to be for dissimilar inventions; the parties will each contend for getting an earlier date than the other; under these circumstances, one for one reason, and another for another, I can conceive those cases arising more often than they have arisen heretofore, by reason of the uncertainty to which this will give rise.

341. What is the objection to certainty?

The objection to certainty is the difficulty as to when a man shall complete a patent. There are circumstances which constantly arise which may lead to delay; my Lord Chancellor may be ill, or the Queen may be ill, or a variety of circumstances may delay it beyond any day which might be fixed; there might be an interference by contending parties; I have known a patent adjourned from day to day before the Attorney-general, and three or four weeks elapse before we could get the report. A variety of circumstances will take place, and you cannot with any certainty arrive at the period when the patent should be sealed. It appears to me that the patent should arrive at an earlier time before the Lord Chancellor, and should date as soon as it arrives there; but that you may provide for by shortening the period during which it is retained in the offices. If a patent were passed in a fortnight, or capable of being passed in a fortnight, under ordinary circumstances, I think the public would have every thing they could possibly desire.

342. What would the objection be to the certainty of a patent taking effect from the date of the petition?

The difficulty is, to say within what time the patent shall be sealed, because where a party has petitioned, he may stand over for weeks and weeks, and then another party behind him, supposing him to have an invention relating to the same matter, is kept back and can do nothing.

343. You think that this power would lead to great delay in the subsequent stages?

I have not the slightest doubt of it.

344. And that that delay would be injurious to all other persons having similar inventions?

Yes.

345. As the Bill stands, it gives the Attorney-general the power of dating the patent from that day?

Yes; but as each party will be contending, and there will be a great deal of uncertainty, we shall have a vast amount of litigation upon the question.

346. Do you think there would be any injury to the public in this provision being carried into effect in the shape of an *ex post facto* law, enacting, that when
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the patent was completed, if any infringement had taken place between the presentation of the petition and the seal being put to the patent, the person so infringing should be liable?

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If you made the patent bear date as of the day of presenting the petition, any body infringing it the next hour would be a wrong-doer, just the same as if the patent had been completed; and when the patent is completed, the party could proceed against the infringer.

347. Do you think that that would have an injurious effect?

I do not think that that would act injuriously, but I think the delay in completing the document to all after-comers would create an immense deal of litigation and difficulty.

348. Therefore, if that system were introduced, you would think it necessary to add some provision to prevent delay?

Yes; but the difficulty of doing that with efficiency induced me to say, that if you can grant a patent, and have all the official stages gone through within a fortnight, you give the public all that can possibly be desired; that is the opinion I have arrived at as the result of my experience.

349. You would have no objection to this power being given to the Attorney-general, provided the other stages were completed within a given period subsequent to the presentation of the petition?

The difficulties of arriving at that are very many; the Queen's illness, the Lord Chancellor's illness, the Attorney-general's illness may interpose, or there may be a series of oppositions and difficulties by the opponents; for I have known difficulties arise which have required meeting after meeting, and which have taken a month before the Attorney-general could arrive at a proper judgment upon the case.

350. Does not it appear that all those difficulties make it desirable to grant the Attorney-general that discretionary power of fixing it?

I think not; because it would give an opportunity for more litigation between the contending parties before the Attorney-general. No patents would come in without that being one of the ingredients of opposition where like titles existed; for instance, take the case of an improvement in the manufacture of lace: two parties come forward; their inventions may be totally dissimilar, but as you have them come in nearly together, they would fight for every kind of position in order to induce the Attorney-general to give them the precedence. There is no benefit in this early dating of a patent. I see no benefit at all to be derived from it.

351. Is there not a clause in this Bill which may meet some of your objections; the seventh clause provides for a limitation of time of suing out letters patent?

That does not meet the objection in any way; on the contrary, if it is taken as it stands in this Bill, it adds to the difficulty which I am now suggesting, because it gives every petitioner three months before he need make up his mind to go on at all; that keeps all parties back for three months, and rather adds to the difficulty than removes it.

352. Who is the party supposed to be benefited by dating the patent from the time of application rather than from the sealing of it?

The inventor.

353. Is it the object of the patent laws to benefit the inventor; are they not rather for the benefit of the public?

I think the law ought to be to benefit the inventor and the public; unless they are fairly balanced, no good law can exist. I was going to point out to your Lordships what is supposed to call for this proposed state of things. There is an idea in some people's minds that a party petitioning for a patent may be opposed, and be prevented getting his patent till after some one else has got the invention into public use; and it is to prevent the possibility of an invention being brought into public use between the day of the application and the day of the sealing that is the inducement for this proposition. I can only say this, that I do not, in 29 years, remember an instance of an invention coming into any public use, such as would destroy a petitioner's right, between the time of

W. Carmichael, Esq. his application and the time of getting his patent, and yet it is to overcome that imaginary evil—for it is not a real evil—that this is proposed to be enacted.
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354. Are you not aware of a good many inventions which, though not introduced into general public use, have been so far promulgated to the public as would have been sufficient to defeat the patent if it had been opposed?

I know of no instance of that kind. I know of no instance where a party has petitioned for a patent, and, between the time of his petition and the sealing of his patent, it has come into public use or into any use, which being brought against the patent would destroy it; and I do not think, if your Lordships will ask the witnesses who may be examined, that they will be able to give you an authentic instance of the kind; therefore you are legislating here for an imaginary evil. I grant that it has been a supposed evil ever since I have been acquainted with patent law; my attention, from this circumstance, has been therefore largely given to it; but from 1829, when the same idea was also promulgated before a Committee of the House of Commons, up to the present time, no such case has occurred that I am aware of.

355. It was stated, in evidence before the Privy Seal and Signet Commission, that there was another danger, which was that of rival inventors obtaining a sufficient knowledge of the invention to enable them to apply for a patent, and by some extraordinary diligence and activity getting the start of the first applicant?

I cannot imagine that to happen if the offices were uniformly opened day by day; I know of no instance, however, of that happening even now.

356. You will find that to be stated in the evidence taken before that Commission?

That is one of the reasons given for the suggestion; but the main, and I may almost say the sole, object of getting protection from the first day, is in order to protect the petitioner from the possibility of his invention getting into public use between those two periods.

357. Has not the object of the recommendation been, that it is felt to be desirable to give early publicity to the invention, but that it would be unsafe to do so without such protection?

You do not get any earlier publication by this Bill, because the circumstance of depositing this paper with the Attorney-general will not make it public; the patent would be granted to the party on the same conditions, namely, that, within the period named in the patent, he shall come in and enrol and make a proper specification of his invention; and therefore that does not produce an earlier public statement at all. A second party applying for a patent is open to opposition in precisely the same way as the first party; and the first party may, and always does, prevent the patent of the second party getting sealed earlier than his own, because he enters a caveat against the Bill or at the Great Seal. The uncertainty of the present Bill would be a source of great litigation. Supposing A. applies for a patent, and is dilatory over it; B. also applies for a patent, with a like title, and is more diligent; if A. wholly neglects his application, and lets it stand over, and B. is an honest inventor, and diligently pursues it, as there is every remedy in A.'s hands if he will use them by opposing B., either before the Attorney-general or before the Lord Chancellor, I do not think that you ought to repress the diligence of B., and make him wait upon the dilatory man, A., as long as the dilatory man chooses to hold over; and you ought not to pass a law which would benefit the dilatory man to the prejudice of the diligent man.

358. What is the next objection which you have to state?

The next objection applies to the 6th section. It is proposed here, that the party, during the pendency of the matter before the Attorney-general, may alter the statement left with him; but there is no means of altering that statement subsequent to the issuing of the report. Now, under the present state of things, the party leaves with the Attorney-general this very deposit paper; and he may, at any period, withdraw any portion out of that deposit paper before the enrolment of his specification. The benefit of that is very great, and the prejudice to an inventor, if this section were made law, would be very serious. A party goes to the Attorney-general, who imagines that he has made, we will say, three improvements

improvements in steam-engines; he puts the general nature of those three improvements into his deposit paper. In the course of the time of working it out, before it arrives at the specification, he finds he has not had time to mature one of them; and the consequence is, that it stands on record against him in the Attorney-general's office, that he took out his patent for three things, whereas his specification contains only two; and it publishes that third thing, which may have great merit in it, though it was not sufficiently matured to enable him to put it into the specification. I say, he ought at all times to be able to withdraw any portion of that deposit paper, so that the public should not become possessed of the secret through the deposit paper. Then there is another evil; there are decisions in our courts of law, that if a party take out a patent for three things, and the patent ultimately contains only two valid things, there has been a fraud upon the Crown, or the Crown has been misled into granting a patent for more things than the specification contains; and the patent is thereby made void. Now we do not know what effect this deposit paper will have upon such decisions; and therefore I would much rather that the law should remain as it is, than have this alteration made, by which evils would be brought upon us which do not now exist. On the contrary, the present mode of working out the deposit papers with the Attorney-general, is infinitely superior to that which is proposed in this section, because it enables a party to withdraw any portion of his deposit paper up to the last moment. This would prevent his doing so after the report is issued.

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359. Is it a desirable thing to introduce a number of incongruous things into one patent?

No.

360. Would there be any objection to requiring that each invention shall be the subject of a separate patent?

It is very difficult to know what is a separate invention; for example, an improvement in the manufacture of cotton may depend upon a process, commencing at the very earliest period of carding up, to the very last process of spinning, and yet you may go through the carding, roving, doubling, spinning and twisting, before you have realized the very improvement which has commenced in the early stage. In such a case it would be almost impossible to divide it and say whether the man shall have a patent for one thing, or for half a dozen; he appears to have got an invention in carding; he also seems to have got an invention in doubling, in roving, and in spinning, all of them being done by a separate process, though the improvement he has made may pervade the whole of them, and none of them be complete till it arrives at the end; therefore, so far as my own experience goes, I think you cannot define what "one invention" is.

361. Why should not the man taking out a patent for those three different processes, take out simultaneously three patents for the different operations?

Because neither invention is a complete one in itself; that happens in many instances, and I do not think you ought to force upon a man to take out a series of patents in such a case; I think it ought always to be left with the Attorney-general; I must confess that I think the Attorney-general ought (though it is a very difficult thing for an officer to do, because it may appear as if he wishes to make the parties go to a greater expense than necessary) to restrict the parties from putting in several things unless he sees and is satisfied that there is that connecting link between them which warrants their being put into one patent.

362. Has not the great expense of patents been one great inducement to including a large number of different things in one patent?

Yes.

363. Would not a diminution of the expense have a great tendency to prevent that?

I very much doubt it. I find parties are equally willing to put a multitude of things into a registration which costs a small sum of money; they ask you to use as much ingenuity in making several things which are incongruous look alike as possible, in order to get them into the same document, which costs 10*l.*; I believe that the practice would prevail nearly as much if you made

W. Carpmael, Esq. a cheap patent, as it does with a dear one ; therefore, I think you should leave with the Attorney-general the duty of determining upon the congruity and propriety of what he permits to be inserted in the patent.

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364. Do not you think there would be the advantage in cheapening the patent, that it would remove the objection which you state to exist in the Attorney-general's mind ?

It might do so ; when a party comes to me, it would be to my interest to recommend him to have four or five patents ; if I use skill and ingenuity to make dissimilar things seem to have a connexion, as your Lordship suggested just now, I am doing it against my own interest, apparently ; I am not, in fact, doing it against my own interest, because, if people think I can do it more to their satisfaction than others, they come to me in preference ; I object to the 6th section, thinking that the present practice is infinitely better than this section would make it.

365. You would, in fact, allow of amendment in all stages ?

Yes ; I have a great horror of legislating for practice ; I think the Court in which any practice is carried on (whether it be that of a Judge or an Attorney-general) should always have the power of making its own rules of practice ; then they will be flexible, and as the times alter, the officer through whose hands the thing passes is able to meet the times ; whereas, if it is a rigid Act of Parliament, you must obey it, however inconvenient it may be to the public, or else you must come down to the Legislature, and ask for an Act to amend the former one. Legislating upon every little point of practice is a very objectionable system, in my opinion. Then we come to the section to which my attention was called just now, which confines a man who has petitioned either previously to this Act, or subsequently to this Act, to complete the stages of the patent within three months. First, I would say, that that would not always be possible, for I have known occasions in George the Fourth's time, when a patent remained with his Majesty nearly, if not quite, as much as three months.

366. Is not that difficulty prevented by the power of going before the Lord Chancellor ?

No ; and if we could, we cannot go before the Lord Chancellor, even with the most simple petition, without being exposed to great delay and great cost : moving the Great Seal is always a very serious and costly matter.

367. You take an objection to this section in conjunction with the previous section, as to dating the patent back from the day of the petition ?

Yes.

368. Independently of that previous provision, do you object to it ?

I take an objection to it upon the ground of the evil which must arise from hanging it over for three months.

369. You are aware that it is a restriction instead of an extension ?

I am aware that it is intended to be a restriction as far as it goes, but it will be used as an extension of a man's position, and enable him to fight a competitor coming afterwards, in a way which I am sure your Lordships do not intend by this section.

370. How long does it now usually take to complete a patent ?

With diligence, all the officers being in town, a patent may be sealed in three weeks, which I think is too long ; but if there is any opposition before the Attorney-general, or any officer absent from town, or any parties ill, there may be a delay of many weeks.

371. Surely the present process is much more subject to delay than the process which is proposed in this Bill would be ; I refer to delay arising out of any negligence on the part of the officers of the Crown. By this Bill, as I understand, the sign manual is only once required ?

It is required twice, I think.

372. Supposing there to be only one sign manual necessary, the chances of delay would be less than they were before ?

Yes.

373. Is the inconvenience to arise out of that delay any other than the inconvenience

venience that must arise throughout the whole of the public service where the sign manual is required? *W. Carmichael, Esq.*

The patent, by this Bill, is absolutely destroyed, if the party does not go on within three months. The petitioner's position is destroyed if any circumstances occur which delay the progress of the patent beyond that period. 9th May 1851.

374. If you can suppose such a delay to be a probable event, and one which ought to be guarded against, is not it one which will affect the greatest public interests of every description?

No, I do not think so.

375. I refer to those interests which require the sign manual in order to their completion, such as great public appointments?

I have known, in the time of George the 4th, patents to be four months in passing, and all the diligence being used which was possible.

376. Where did the delay arise?

With the King. Personally, I care not whether this section stands or not; if it stands, I dare say I shall be called on to make the best use I can of it for the benefit of those who consult me. I am only pointing out to your Lordships objections where I am sure they exist. I can give your Lordships an instance which happened within the last few years, where the documents were delayed in passing from one office to another. It was when the Queen went to Ireland, I think. A box was lost for a time in going to the Queen, so that we were without the documents contained in that box for a considerable length of time. It may happen again, and a series of other unfortunate circumstances, such as a caveat at the Great Seal, may delay the petitioner over those three months and destroy his position, though he may have used every diligence; in fact, it would be the object of an opponent to delay the petitioner over the time, and thus destroy his prior position. I do not see any benefit which is to arise from this section.

377. Provided it were made to appear that the petitioner had exerted every diligence, and that the delay was not his fault, the objection might not arise?

Then you open a series of investigations as to whether that is the case or not. The difficulty I have, is to see the object or intent of that section. If I could have a position put to me, so that I could test the Bill by that position, I should be able to answer more fully.

378. The object of this section appears to be self-evident. When you give a power of dating letters patent back from the day of presenting the petition, it is supposed to be necessary, in order to prevent the very difficulties and dangers of injury to other parties which you have mentioned, that the party having lodged the petition should be obliged to proceed and sue out his letters patent within a certain time. If such power is given to date back the patent from the date of the petition, is not it in your opinion requisite that a limitation of time should be imposed upon the party within which he should be bound to sue out his letters patent and conclude the proceedings?

Yes, most distinctly, assuming the first, because you want a limitation of time in order to protect the public against the position that the petitioner has obtained.

379. If I understand you correctly, you do not object to penal consequences being visited upon a party suing out a patent in consequence of delay arising from his own fault?

No.

380. But your apprehension is, that under this clause he will be exposed to penal consequences, arising from delay over which he has no control, and that danger, you think, ought to be guarded against?

Yes; but my own feeling is, that any provision for making the patent bear the date of the petition brings with it so many evils, that if your Lordships see your way to making the progress of a patent take up less time than it does at present, you will do more benefit to the public by shortening the period, than you will by attempting to cure the imaginary evil that a party may be injured pending his application, and before the grant.

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381. Do you think, if the power of dating back the patent from the time of the petition were not granted, but that clause were struck out of the Bill, that without that clause there would be sufficient inducement to the applicant for letters patent to proceed with all due diligence and despatch?

I am quite sure of it, because if he did not proceed with due diligence and despatch, and there were a second honest inventor coming on, that second party would take advantage of the want of diligence of the preceding one.

382. Striking out those two clauses, the law would remain in its present state, in which it is, whether rightly or wrongly, so much complained of by inventors?

I do not think it is much complained of by inventors; but there are a certain number of persons who have imagined that evil can grow out of the present system; but I believe your Lordships will not have any positive instance brought before you of injury occurring, and I cannot see the propriety of legislating for an imaginary evil, as to which, though it has been complained of for many years, it cannot be pointed out that any injury has really taken place.

383. Will you proceed to your next objection to the provisions of the Bill?

The 8th section passes the patent from the Crown to the Lord Chancellor; that would take away one of the opportunities of an opposing party to come in and be heard, supposing the report had passed without his ever having heard of it; now, there is nothing that is more liable to happen than a party not having notice of the first stages of a patent; the ambiguity of a title may not so have instructed the Attorney-general's clerk's mind as to lead him to give notice on a caveat which he ought to have done, or the clerk may overlook, in passing his eye through the book, the caveat of a party who ought to have notice; those are cases which have occurred, and always will occur; under the present system that is cured by a party having power to come in and oppose upon the Bill; but if this section be passed into a law, he can have no other place in which to oppose than before the Great Seal. Opposing before the Great Seal involves a very serious cost, and often creates a most important state of circumstances, which many men have not courage to face. The party applying for the patent has to petition the Lord Chancellor to seal his patent, notwithstanding the caveat; the opposing party comes in with his counsel to state the reasons why it should not be done; he is then sent back to fight it out before the Attorney-general, and then it comes again before the Lord Chancellor; I must say that I object to that provision, unless you can give some second mode of opposing, where the parties have a rightful ground for opposing; the guard now used by the Attorney-general is, that opposing parties coming in at a second stage shall deposit money to meet the expenses of the hearing, and all the expenses that the petitioner has been put to since the granting of his report, supposing he ought to have been stopped at an earlier stage; therefore I think that the passing immediately from the Crown to the Great Seal without any other means of a hearing, in the event of any accident or other fair ground for opposition, would be injurious.

384. Your objection to this clause is consistent with the objection you stated the other day, to doing away with the delays arising from the different stages now required for suing out a patent?

I wish to have the time shortened, but I also wish to have all the guards for the public preserved, that parties may fairly come in and be heard, and that neither accident nor other circumstances should prevent their being heard, where they have fair grounds for it.

385. Does it ever happen in practice that a caveat is overlooked?

Not often; we have, however, in the course of years, had many instances of it.

386. What is the nature of a caveat?

Supposing a party wishes to have notice of any application for a patent relating to spinning, he puts in a caveat with the Attorney-general, requiring notice of any petition which comes in with reference to spinning. The Attorney-general's clerks are generally very efficient, and do their duty very well, but still you cannot be secure against errors—they will occur, even with the best care, and I think a party ought not to be driven to the Lord Chancellor, in the event of anything.

anything of that kind happening, or any circumstance in consequence of which he does not get the full notice he is entitled to; I can conceive of all the guards at present existing being retained, and yet the present expense of a patent and delay in granting reduced. My own belief is, that this clause and another section of the Bill which protects the Attorney-general in his present position, requires that a Bill should be prepared; Mr. Webster, I understand, thinks differently from that. If the Bill is still to be prepared by the Attorney-general, the objection I am making to your Lordships falls to the ground; I am dealing with the section as I find it in the Bill; but if the Attorney-general is to prepare this document, and there is to be a Bill, we should come in under ordinary circumstances, and my objection would be removed; combining that section with the 18th section, that the fees of the Attorney and Solicitor-general and their clerks are to be retained in respect of petitions referred to such Attorney and Solicitor-general respectively, I imagine there is to be a Bill prepared, though the Bill is not very clear, when you combine those two sections, the 8th and 18th together. I have put myself in this position with respect to both these Bills; I have endeavoured to work out that which has hitherto existed in practice by these Bills, and if I fail to do that with equal efficiency to the present practice, then I conclude that the Bill is not a good Bill, and ought not to be passed into an Act. As I said before, I have a great horror of legislating upon mere details of practice which ought always to remain flexible to accommodate themselves to the times which are constantly changing; as long as they are in the hands of proper officers, such as the Attorney-general and the Lord Chancellor, I cannot conceive of any benefit in legislating upon such things; they have heretofore, and I think properly, always been regulated by those officers, and an Act of Parliament would make the practice rigid; whereas now it is flexible, and yields to the requirements of the times.

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387. Will you proceed to the next objection?

The next section is the ninth; that involves a question which was partly spoken of in my last examination, namely, the question of leaving out the colonies in a patent granted for England. According to my view of the subject, the prerogative of the Crown ought not to be dealt with in a Bill in this manner. The Bill, apparently (I am not sure that it does really), takes away from the Crown the whole right of granting colonial patents; it certainly takes away from the Crown the power of granting, in the same patent which is granted for England, rights which shall prevail over the colonies.

388. Do you think that that clause does shut out the colonies?

I understand that it is intended to do so.

389. Is not it intended to shut out the colonies from being comprised in the same patent which is granted for the United Kingdom?

There is no provision in the Bill for granting colonial patents; my own opinion is, that heretofore the colonies have been added to the English patent; the Crown requires the power to grant one patent for the three kingdoms; this would enact that power; but I feel quite sure of this, that the Queen, by Her prerogative, has the power of doing so now. I remember my Lord Brougham in a case saying that Her Majesty might even grant a patent for Manchester alone.

390. What is the practice with regard to patents in the colonies?

The usual custom is, when an invention is supposed to be applicable to the colonies as well as to England, that the parties petition the Crown for letters patent in England and the colonies, and the Crown grants a patent for England and the colonies. It also grants a further privilege, through the Privy Council, of enabling the patentee in the Crown colonies to deposit official copies or authenticated copies of the patent and the specification, so that they shall be as good evidence as the production of the original documents.

391. Do you imagine that this clause takes away any existing prerogative of the Crown?

I will not venture to say that it does; but if I understand it aright, I am quite sure it is intended to do so. Perhaps my mind is, in some degree, brought to bear upon this, by having had to enter upon a discussion as to the colonies, a short time back, at the Board of Trade and at the Colonial Office.

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392. Would not the effect of this clause be to make it requisite to have separate patents for the colonies?

Unquestionably it would prevent the possibility of the Queen granting one for the colonies in the same document with that for England; there is then no provision either as to fees or otherwise, which would enable Her Majesty to grant a patent for the colonies.

393. Would not the Queen be able, after this Bill, to grant patents for England and the colonies?

No, my Lord. It is possible that, after this Bill, the Crown might, by force of prerogative, still grant a patent for the colonies alone; but as the Queen cannot tax Her subjects without the consent of Parliament, no fees could be charged for that patent; there is nothing in this Bill which enables any of Her Majesty's officers to take a single shilling for a patent so granted, therefore I understand this Bill, in substance and in fact, to exclude Her Majesty from granting patents for the colonies.

394. That is your objection to the ninth clause?

That is my objection to the ninth clause.

395. You do not object to comprising the three kingdoms in one patent?

No; subject, however, to other portions of the Bill, providing that power shall be given to parties to take out separate patents if they think proper so to do. I have no other objection to this clause than this, that it excludes grants by the Crown in the colonies. I have no objection to a patent being granted pervading the three kingdoms, provided parties are still permitted to take them out separately if they wish it, all their rights being still fairly and properly retained.

396. Had not we better discuss this clause separately; first of all considering what it is we intend to do; secondly, whether this clause does effect what we intend to do; and, thirdly, whether this clause, in effecting what we intend to do, does indirectly effect something else which is not intended?

Of course I cannot know what the intention may be.

397. Do you think that a party would obtain a respectable opinion before he proceeded under that clause, that the Crown was shut out from the exercise of its prerogative by that clause?

Certainly, my present opinion is, that the Crown is shut out, and that the Queen could not grant me a patent for the colonies if this were an Act of Parliament.

398. That is to say, She could not include the colonies in the same patent?

Yes; and then She could only make me a present of a patent for the colonies by force of prerogative, and what officer She would direct to make it, I cannot tell; unless the Crown do it in this manner, it has no means of giving me a patent for the colonies.

399. This Bill does not repeal the existing Acts; would not they be in force, and apply to any case not comprised within this Bill?

No certainly not; I put it confidently before your Lordships, that, supposing this were an Act of Parliament, the Queen under no statute in existence could grant a patent for the colonies, because there is no statute which exists which gives Her the power. She only grants patents by reason of Her prerogative, as declared by the statute of James the First.

400. Is there any objection to letters patent being granted for the whole of the United Kingdom, instead of being taken out for England, Ireland and Scotland separately?

I think not; still retaining the power of individuals having a separate patent, if circumstances require them so to do, which the Bill does provide for in one sense, but is silent on in another sense.

401. This clause would not exclude any party from taking out a patent for only one portion of the United Kingdom?

No; I see no objection to granting by one grant a patent for an invention, to prevail over the three kingdoms.

402. Would it cost more to take out a patent for the whole than for a certain portion of the kingdom?

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I have not arrived at the conclusion in my own mind, that your Lordships are satisfied that patents shall be granted for this sum or for that; I am making these statements, anticipating that other matters in respect to the cost of patents will be discussed presently.

W. Carmichael, Esq.

9th May 1851.

403. What is the next clause to which you object?

The next section raises in some degree the question of cost; that section provides that there shall be a tax upon patentees, payable in three years and seven years. I entertain a very strong opinion that a patentee should not be taxed simply as a patentee; and I entertain also another opinion, that it would be injurious to grant patents for a small sum, with the future intention of taxing those parties at certain periods. Whatever sum you make the original grant to cost, will be the limit of the number that will be granted, or the cause of the extension of the number that will be granted. If you make a patent at the early stages cost 10 *l.*, with the future understanding that the patentee is to pay 500 *l.* or any other sum you may name, three years hence, there would be as many patents granted at the cost of 10 *l.*, with the future anticipation of paying a large sum, as there would be if you granted them absolutely for one sum of 10 *l.*, without any future payment at all. Therefore, I object, first, to the taxing of the patentee, simply because he is a patentee, because I think there is no ground on which you ought to do so; and I also object to it on the other principle, that cheap patents will bring in such a host of matters, that they will go to destroy the solidity of every patent which may be granted under such a law. I am confident that you cannot do a greater injury to inventors, and consequently to the country, than to grant cheap patents.

404. Will you state the grounds of that opinion?

The grounds are these, that if you make cheap patents, every person will be desirous of having an apparent difference between himself and his neighbour or his competitor, in order that he may advertise; he will not take out a patent because he has got an invention; he will not even examine whether the thing pre-exists or not; but he will take out a patent and lodge a document, and that document and every one of those documents must be read when a real and beneficial inventor comes forward, and the beneficial inventor will be encumbered with all these documents, and I do not think it will be in the mind of man to make good specifications in the face of them; and the good inventor will be labouring under this disadvantage, that when he has got a good invention, he will not be able to get from a professional man a sound and confident opinion which would justify manufacturers in going to the expense of putting the thing into practice if it required considerable cost, because manufacturers will feel that such is the doubt of any specification that they may have brought to them, that, should they go to the requisite expense, they may find that they have not got a valid document, and, therefore, they would have gone to that expense in their own wrong, because their competitors would set to work and use the invention as soon as the thing is successful. I am clear that you will do great injury by attempting to grant patents at a very low cost. For myself, personally, I could have no objection, because I should probably get a very large increase of business; but I assure your Lordships that I feel most strongly that the greatest injury you could do to an inventor or to the public (because it is as much a public question as an inventor's question) would be to give a patent to every man who chooses to come for one at a small cost, in order that he may use it for the purpose of an advertisement, which is now becoming a very prevalent disorder in this country.

405. You think there is no mode of checking the undue granting of patents if the fees to be paid are small?

I am very confident of it. Whatever tax you put upon the patentee ought to be put upon him at once for his own benefit, to guard against other parties coming in to his prejudice. In that case, you are taxing him only for his benefit; but if you tax him afterwards in the way proposed, that is another state of things.

406. Under the present system, the only real security for patents being granted only for true inventions, is the amount which inventors are made to pay for them?

I think so.

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407. Do

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407. Do many patents arrive at intermediate stages without proceeding further now ?

Yes, a great many.

408. Can you state at all accurately what number ?

There have been returns to Parliament of the numbers. I could not state the numbers from memory.

409. In your own office, can you state at all what the proportion may be ?

No, I cannot. Sometimes there are a great many, sometimes very few. It is a very common thing now for persons to apply for a patent, and to discover at a very early stage that their invention fails. A party imagines he has got a good invention. He quietly progresses with it while his patent is proceeding. He finds the result is not satisfactory, and he therefore stops any further proceeding. In other cases, parties think they have got an invention, and they take the preliminary stages, and while they are taking the preliminary stages, they investigate the subject, and find that the subject has been anticipated, and they stop their patent. Another case is, that they think they have got an invention, and under the advice of myself or others, they take a practical man's opinion, not as regards advancing money for it, but with a view to see the probabilities of its being carried out. The manufacturer points out the difficulties which he would have to contend with, and that success would not follow, or if success followed, it would not be beneficial when contrasted with the present state of things. For that reason, the patents are stopped. There are a multitude of reasons, therefore, why patents are stopped in their different stages through the offices.

410. Do you know at all in what proportion they are so stopped ?

I cannot state from memory.

411. Do you know what the practice in America is in that respect ?

The proportion of refusals there is very large, in comparison to the number of grants. I think the proportion is more than half, or approaching two-thirds.

412. Not a greater proportion than that ?

I think not.

413. Are there many patents which are stopped at the Privy Seal Office ?

No ; they seldom get so far as that without going to the Great Seal.

414. Would not a periodical payment lead to the abandonment of many useless patents, which are now only an obstruction, and of no use to anybody ?

I think not ; on the contrary, I think a periodical payment would have this effect. Your Lordships put the question to me the other day, whether certain patents were not bought up with a view to suppress them. I believe that the patent, when it arrived at the period when the 40*l.* was to be paid, if there were any thing in it, would be hawked about at a price something more than the 40*l.* which had to be paid for it, so that the party might pocket the difference, and hand it over to another person who would pay the 40*l.* if he thought there were any grounds on which it might be fought, or offer the appearance of a protection.

415. You think a useless patent they would still be able to hawk about in that way ?

Yes ; it must be a very bad patent that would not be worth 40*l.* Your Lordship used the word "obstruct ;" a bad patent cannot obstruct anybody virtually.

416. May it not be the ground of an action ?

No man, knowing that he has an absolutely bad patent, such as he would throw up for 40*l.*, would ever bring an action upon it.

417. Are not patents sometimes taken out, not with the real view of using the invention, but as a basis upon which the parties may build up litigation of one kind or other, and come to an advantageous bargain with their competitors ?

No ; I never heard of such a case, nor do I think it probable that such a case could occur. The party must commence with an oath, that he has invented something : that, to my knowledge, has prevented many persons taking out a patent.

418. The

418. The oath may prevent many persons from doing so, but does it stop all parties? *W. Carpmael, Esq.*

I believe you could find no case—I know of none myself—in which a patent has been taken out merely for fighting objects in the way which is suggested in the question. I cannot conceive of any benefit, or imaginary benefit, likely to grow out of such a state of things.

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419. Is not the fact of patents being taken out for that sinister purpose alluded to in many publications?

I have read a great many of the publications, but I can only say this, that of all the documents I have ever read upon any subject in my life, I never saw such extraordinary statements as are sometimes published about patents; therefore I will not venture to say what may and what may not have been suggested. But I would respectfully suggest to this Committee that you should ask for positive instances, and if your Lordships trace them to their source and their result, you will know the value of them; I can only say that I know of no such instances.

420. You state, that you know of no instance in which a patent has been bought up by the possessor of another patent for the purpose of suppressing it?

I know of no instance of it. I have turned to the papers with reference to the case your Lordship suggested the other day, and I am more confident now than I was then, that no such case has occurred in the particular class of inventions to which your Lordship alluded. I am quite sure, whoever suggested that case, that if your Lordships shall ask him to give you an instance, he will not be able to do so. I am perfectly ready, as a witness before your Lordships, to give you instances for every case that I state, and I only hope your Lordships, where a broad statement is made, will ask for positive instances and facts, and you will then judge of the value of each case; but if your Lordships have the various papers before you which I have seen, and the various statements which are made in respect to patents, and take them as facts, you will be misled. I unhesitatingly say, that no instances or facts could be produced before your Lordships to establish a multitude of the statements which are made.

421. Can you suggest any principle for the guidance of the Committee in regulating the amount of the cost of a patent, with a view of making it most efficient for accomplishing what you state to be its legitimate purpose, in the protection of the patentees themselves?

Even at the present time there is a very large number of patents taken out for useless inventions. By whatever amount your Lordships may reduce the cost, that quantity will be greatly increased; but still, I think, if your Lordships can see your way clear to reduce the total amount to 150 *l.* for the three patents, if in one grant only, that would be satisfactory to the public, and, as far as may be, would prevent useless patents being taken out.

422. Can you suggest any other means of limiting the number of patents, except by the high amount of the original cost of taking them out?

I do not think there is any other possible mode of doing so. I know of no other means than the cost of the original grant, of preventing useless patents from being taken out; but the quantity of worthless patents which will follow any reduction of fees will be greatly increased, and more than greatly, if you reduce them to a very small cost. I think the whole object of the patent law ought to be to give a fair remuneration and benefit to the inventor, and at the same time guard him against having his property jeopardized by such a lax state of things as would make him have to contend (when he has got a good invention) against a multitude of documents which contain no invention at all, and I know of no other means of doing this than putting a cost upon it, which will deter persons taking worthless patents for advertising purposes, to the prejudice of the public and the real inventor.

423. Do you think that decreasing the cost of patents would militate against the main object of the patent law, namely, the encouragement of invention?

I do not see that it would militate against the encouragement of invention, but it would militate against the true inventor being fairly remunerated for the great benefit he may do to his country. I can conceive such a case as that of Watt, or Arkwright, or Cook and Wheatstone, having conceived a splendid invention, and yet, when they came to carry it into public practice, they might be so beset with documents as virtually to destroy all probability or possibility

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of their getting one shilling out of their invention, however meritorious or however great it might be. I object very strongly to the 10th section; first, on the ground, that I do not think a patentee, as such, should be taxed. I think, before you grant a person a patent, you ought to put such a charge upon the grant as would deter persons from coming in with sinister motives, or coming in with perfect indifference as to the novelty and utility of their invention, by reason of the small cost they are put to in getting the grant. I do not think a grant of the kind should be made so laxly and so indifferently, as it would be, supposing this Bill were worked out as it now stands.

424. What is your next objection?

The 11th section provides for parties taking out patents in Ireland and Scotland separately, but not in England; I do not know whether your Lordships are aware that there are what may be called seats of manufacture, and strange to say, a manufacture does not go out of those seats for ages. We will take the stocking trade, for example; there are few stockings made out of the midland counties; there are none made in Scotland or Ireland, except by hand. Take lace again; Nottingham and a mile or two round would include the whole of the lace made in this country, except a few machines at Worcester and the Isle of Wight; there is scarcely ever a patent taken out in Scotland or Ireland for either of those manufactures. None of the Birmingham manufactures are produced, or at least the number is so small as to be comparatively insignificant, in Ireland or Scotland. Stamping machinery is scarcely known any where else than in the neighbourhood and the town of Birmingham; persons never take out patents in Scotland or Ireland for those things. I would venture to suggest to your Lordships, that it is not desirable so to arrange the cost of a patent, as that it would not be desirable for a man to split it into parts, but I would suggest that it should be divisible into parts, and that each party should take out a patent for the country where the locality is to which his invention applies, and not be bound to pay for a patent in a country where it is perfectly useless to him. The cost of a patent, I think, should be fixed at such an amount when the three kingdoms are included, that the patent should be in some relation to the larger district over which it is to operate; and in naming 150*l.* as the gross sum, I should be inclined to put the cost of a patent in England, under any circumstances, as high as 70*l.* or 80*l.*, and the Scotch or Irish patent should be 50*l.* or 60*l.*, if taken out separately, so that the sum of the three should be more than the cost of the whole if taken in one; I am quite confident that that would be satisfactory to the public when it was so worked out, and would be much more beneficial than having one grant under all circumstances, whether it was applicable or not.

425. Would not the effect of that proposition be this: that if a great number of very valuable inventions were patented in one particular place, which is supposed to be the seat of a certain manufacture, there would be a sufficient inducement to persons to remove the manufacture from that particular district, and establish it elsewhere?

It never has been so.

426. Because such inventions have been equally prohibited elsewhere?

What I am stating is, that patents taken out in England for an invention appertaining to the trade of Birmingham or Nottingham have never been worked in Scotland or Ireland.

427. Have not many manufacturers migrated from the south to the north?

Not to any great extent.

428. Not from Gloucestershire to Yorkshire, for instance?

No; I speak of course only of certain manufactures; there is not a bit of lace made in Scotland at present. Certain branches of manufacture, no doubt, have gone to Ireland, and others to Scotland in the course of very many years, but the larger portion of our manufactures are now carried on in particular districts; and there does not seem such a probability of their migrating as to induce men to take out patents for those countries to prevent it.

429. Has not the manufacture of lace migrated; is not it carried on now at Honiton?

That is a different style of manufacture; it is all done by hand.

430. What

430. What injury is done by patents extending over England, Scotland and Ireland, instead of being confined to the mere locality of the manufacture, supposing there are no manufactures of the same kind in Ireland or Scotland?

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I should like to make patents cost less than they do now; it should be such a sum as should prevent parties coming in unnecessarily; but I would give some advantages to parties in particular localities, so that they might not have to incur the whole amount, their benefit being only local.

431. To carry out your views, there must be an additional provision introduced with regard to the different expense of taking out partial and general patents?

Yes; the 11th section of this Bill provides for taking out patents in Scotland and Ireland separately; that is the practice now, and I think it desirable to retain it.

432. With regard to the expense, you are of opinion that the expense of taking out a patent for England, Ireland and Scotland should be greater than the cost of taking it out merely for England?

I recommend that a patent, if taken out in a single document for the three countries, should cost somewhere about 150*l.*; and then, to carry out that suggestion, and to work out this Bill, and this 11th section in particular, I think it very desirable that there should be the power of taking out a patent for England or Scotland or Ireland alone. But the Bill does not provide how such patents are to be taken out alone; it only provides for a general patent, so far as the fees are set out.

433. Does not your recommendation, that there should be separate patents taken out for different portions of the kingdom, turn upon the assumption that the cost should still be considerable?

Certainly. I will state one case with respect to Scotland, where a patent in England and Ireland would have been perfectly useless. In Scotland they have what is termed black band, a species of iron ore which we have not in England or Ireland, at least not in any such quantity as to induce parties to enter into it; if we took out a patent for introducing black band in the manufacture of iron for the first time, a patent for Scotland would cover the whole of that manufacture. Again, there is no anthracite in Scotland, therefore a patent as to that would prevail only in England and Ireland.

434. What is your next objection to the provisions of this Bill?

The next proposition to which I object is in the 12th section; that is fraught with a multitude of evils; the first would be that the evidence of a foreigner or the evidence of a foreign book would destroy a patent in England; I can only say in regard to patent causes, that an inventor is subject to quite difficulties enough in having to contend with witnesses who come up within the three seas; but if his patent is liable to be upset by a foreigner coming from any part of the world, I should be very sorry to advise any man ever to fight a patent case at all; it is next to impossible that you could ever have any confidence in the validity of a patent. Suppose a man comes from America or from Russia, or from any part of France, how are you to meet that man and show that he comes there to perjure himself, or that coming there he is not telling the exact or the whole truth of the case? And then, what is a publication abroad? This Bill says the patent shall be void if there be any publication of any sort or kind abroad. I think this section is fraught with the greatest evils. There is another thing; it would go to exclude every foreigner from bringing his inventions into this country. If he put his invention into use, even for experiment, abroad, that experiment or that use, be it what it might, would prevent the party feeling that he had any validity in his patent in England, because that evidence would be destructive to a patent taken out by a foreigner who had put it to the slightest use in the foreign country, or permitted others to do it for him; therefore I conceive that that 12th section is fraught with every possible injury to every possible party, and can do no good under any circumstances. I would ask your Lordship if you can inform me for what purpose the 12th section is put into the Bill; it is not the law at the present time; it is the reverse of the law, and it is the reverse of the spirit of the law; namely, to induce every foreigner to bring his invention to this country to benefit the manufactures of this country.

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435. You object to the publication or use of any patent in a foreign country in any way affecting the existence of a patent, or the rights of a patentee in this country?

Most distinctly, both on the part of the inventor, the patentee, the public and the foreigner. I cannot conceive any possible reason to induce anybody to put such a clause into a Bill in Parliament; it contains the most destructive set of words I ever saw in regard to any privileges which a party could hold; and I do not think there is any pressure in the various publications or the various statements that have been made upon the subject of the patent law, which in any way justifies this provision.

436. Will you state what occurs to you upon the next clause of the Bill?

We now come to the 13th section. Incidentally, on a former occasion, reference to this subject was made; viz., the propriety of a party not seeking a patent having a right to go and deposit somewhere a document containing a description of an invention, and then having the same privileges as if he had a patent during the period of six months, and a further period of six months if the party chooses to pay for it. This section must be looked at under two states of circumstances. If your Lordships are going to recommend very cheap patents, then this is an absurdity. If your Lordships should think with me, that cheap patents would be pernicious, and you still thought of retaining a higher amount than has been asked for, this section comes in with a view to do something for the poor inventor, who cannot afford to pay immediately the amount, whatever that amount may be, for which the patent should be granted. Now what would be the working out of such a section as this? There is no investigation as to the propriety or impropriety of granting a patent to the individual so coming for it. By the simple act of depositing a document containing a description, he is absolutely to have all the privileges of a patent for six months. What would be the effect of that? A party deposits, at some office which is not provided for in the Bill (but that is rather a question of words), a document descriptive of the invention; the moment he has deposited it, he has all the privileges for the next six months which he would have if he had a patent, and this without investigation to know whether he has done it rightly. Cases have lately occurred of parties going to an office with a document of that kind, under the Registration Act, and getting an apparent legal privilege; they, though not the rightful parties to whom any such privilege ought to be granted, have used such documents to the prejudice of the true inventors. I cannot conceive any state of things which would be more injurious to the honesty of workmen, and the honesty of servants, in whose hands an inventor often is obliged to place his invention, than such a section as this. For the last three or four years I have been obliged to advise every person who has come to me, upon no consideration to place his invention in the hands of workmen, unless he could get the parts made so separately, and so unsuggestive of the ultimate result, as not to inform the parties making the separate parts. We have had many instances of late, of workmen availing themselves of the power which is now offered; and this section would be an additional power, of obtaining what is apparently a legal protection for something which they can go and show to the manufacturers, and ask for money with which to take out a patent. The money is not, in fact, designed to take out a patent with, because they know that they will be stopped when a thorough investigation takes place. The evil is not so much in the money they may get out of the pocket of the unwary, but in the wrong they do to the rightful inventor, who has put them in possession of power to do this wrong. This document will be destructive of the claims of the rightful inventor. I cannot conceive of any possible inducement or pressure which ought to lead your Lordships to pass any such section as this.

437. This section is already the law, is not it, under a temporary Act?

It is the law under a temporary Act with regard to the Exhibition, but nothing further.

438. That is very similar to the provisions of the Copyright Act, is it not?

Yes; what is called the "Useful" Act. For the three or four years last past I have, as I have stated, advised, and have felt it my duty to advise every one who came to me with crude inventions—and most men do come to me when their inventions are crude—not to trust their secret to workmen.

439. Have

439. Have the inconveniences that you are anticipating from this clause occurred from the temporary Act which has been alluded to? *W. Carmichael, Esq.*

No; they have grown out of the Registration of Designs Act.

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440. Can you bring before the Committee any instances which have occurred of that kind?

I will give your Lordship a case which occurred in the Court of Exchequer a short time back: a gentleman had materially improved some windlasses and capstans, and also the stoppers of cables. At the trial, evidence was given that he had at that time three workmen in his employ; he communicated those matters to the workmen, and from time to time he superintended the making of those instruments; the workmen joined together and took out three registrations for those three subjects; one of the workmen was actually brought into the witness-box before the Lord Chief Baron, and stated, upon cross-examination, many of these facts; he was brought as a friendly witness by the defendant, who contended that this was a publication prejudicial to the validity of the patent, because it had been done just previously to the sealing of the patent; that is a positive case; the law books report it. I have had several other cases.

441. Can you state any instances in reference to the operation of the Copyright of Designs Act?

That is such an instance. If your Lordships had been much in the workshop, you would find a feeling prevails very commonly amongst workmen, that if an unpractised mind suggests a certain improvement in a manufacture, and is incapable from want of handicraft to realize in substance the thing itself, and puts it into the hands of a workman, without the workman intending to be fraudulent or badly disposed, he is often run away with by this course of reasoning: that as the man could not do it himself, he, the workman, having done it, is the only person who ought to be rewarded for doing it. With uneducated minds I do not wonder that that sort of argument should have great weight. I have had discussions with workmen who have brought inventions to me in order to secure a benefit in them, and when I have put the oath before them, they have not been able to take it; therefore you are not only opening the door to fraud in the worst sense of the word, but by the impressions you are making on the minds of the workmen, you are placing a lever in the hands of those workmen to be used against the rightful inventor. With respect to the next section, it involves many points of law, and leads to a very serious inquiry; the object of it, I acknowledge, I cannot clearly understand. I can understand it in one point of view, but looking at it in another point of view, that understanding seems removed. The object, as far as I understand it, of this provision is, that this Act should re-enact (but why I cannot tell) certain provisions in the statutes already existing, passed in the 5th & 6th of Will. 4, the 2d & 3d of Vict., and in the 7th & 8th of Vict.; why it should enact them, and not re-enact all the rest, I cannot tell; this is now the law of the land in respect to these particular cases under statutes. Those statutes contain other important points which are not re-enacted by this section; for example, in the 5th & 6th Will. 4, the statute enables the patentee to disclaim or alter his specification with the sanction of the Attorney or Solicitor-general; that is not re-enacted here. If in law the re-enactment of a portion of a statute virtually repeals the portion which it does not re-enact, then you are destroying by this section one of the most valuable possessions which the public and the patentee have at the present time. For what, then, are these sections re-enacted? They do not state the law as doubtful, but they re-enact certain sections of the Acts already existing, without giving any reasons for it.

442. Is not it done with the idea that people may say we took out the patent under such a subsequent Act, and therefore the previous Acts do not apply to it?

I have over and over again said, that I have a horror of legislation where things are very well understood, because legislating for them ties them up to the words of the legislation; unnecessary legislation is fraught with evil. What I look at in this section is this: the party who wrote this appears to say, that the patents which are to be granted under this new state of things would not be subject to what is already the law of the land; but if that were so, why have they selected these special sections, and not all the sections?

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443. It is your opinion that this clause is entirely unnecessary ?
Wholly, from beginning to end.

444. What is the next objection you have to state to the Committee?

By the 15th section the Master of the Rolls may cause indices to existing specifications to be prepared. I have already stated my opinion upon the question of indices, that abstracts of such things are perfectly useless, and rather tend to mislead than to benefit the public. But the Master of the Rolls has full power to do it now, and they always make indices to all their books, as they at present stand; therefore it appears to me an absurdity to put in enactments which already in the current and ordinary practice exist.

445. Do you not think that an index, divided under certain heads, might be useful ?

Such indexes at present exist. I should be very happy if your Lordships could see your way clear, and could find the money to do it, that you should publish every specification in existence; but an abstract I would not care at all for. Then as to enrolments being removed from office to office, the Master of the Rolls already has the power to do it, and the Rolls are now being kept in reference to Lord Langdale's last statute, so as to carry into effect this object. It appears to me that they have collected the provisions of the law, and thrown them into this Bill, so as to make them statute law instead of letting them rest upon practice as they ordinarily exist. The next section contains a provision that official copies shall be capable of being given in evidence, by having the seal of the office in which the specification is enrolled; that is already the law of the land, a special statute having been passed for the purpose. The next section, as to payments and stamps, involves the question of cost, and also the question of periodical payments; upon those points I have already stated my opinion. With reference to compensation, I have nothing to do with that; anybody who has sustained loss by any Act of Parliament ought to be compensated to the extent of that loss. Then we come to the last section, section 22, that proposes to enact that the Bill should not come into operation for three months; there appears to me no reason for this; if a Bill of this kind is to pass at all, it should come into operation the instant it passes; otherwise the whole subject will be kept open for three months; we cannot go on with the old system, and we cannot go on with the new. The possibility of the invention becoming public between the commencement and the termination of the period, would here again arise; we could not move one way or the other for three months; if therefore this Bill is to pass at all, I think it ought to come into operation the moment it passes; any interval would be very prejudicial.

446. With respect to the fees, you have already stated your opinion, have you not ?

I have in general; it will be found that this enactment could not work in the form in which we have it here; but that objection might, no doubt, be easily obviated.

447. With respect to Bill, No. 1, will you state what objections occur to you to its provisions ?

All that I have said with reference to Commissioners being appointed under the preceding Bill, applies to this Bill; but also this Bill enacts that the powers of the Commissioners are to be such that they may appoint officers, and may get rid of that which unquestionably is the best portion of our system of granting patents at the present time, the Attorney and Solicitor-general. We are to be left in the hands of any officer or officers whom the Commissioners may appoint from time to time, and those individuals are to have the power of doing a great variety of things; now I object to that, to the fullest extent that objection can go. I am quite certain of this, that the Attorney and Solicitor-general are the best officers who could be selected for deciding matters of this kind, which necessarily involve partly questions of law, and partly questions of fact, and there is that respect paid to the high office of those individuals that gives the grant a degree of importance which it is desirable should be found to prevail towards such grants. This Bill takes away also the prerogative of the Crown, because the Crown is only, in fact, to become a secretary to the officers whom those Commissioners may appoint, and to ratify by its signet any document which

which they may send up to it ; I do not think there is any reason for such a total change of our present law, nor any grounds which should induce it.

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448. The Attorney and Solicitor-general are to be Commissioners, are they not?

Yes ; but your Lordships also see that the Master of the Rolls or the Lord Chancellor is to be a necessary party to any act which is done ; what is the use of their being Commissioners ? they will do nothing ; they will delegate their powers to others. They are only to make rules for the instruction and guidance of those parties ; they are not to be the operative officers.

449. You think it very desirable that the Attorney and Solicitor-general should always be the officers to carry into execution the provisions of this Act ?

I would by no means take the jurisdiction out of their hands ; so far as my experience goes, there never has been any complaint nor any reasonable cause for dispossessing the Attorney or Solicitor-general of his rights in this matter ; I never heard of wrong being done, or that he wants supervision over him. The present practice is this : the Crown makes the grant ; the Attorney and Solicitor-general are the instruments by whom the Crown makes the grant ; the Crown directs the Attorney-general what clauses and provisoes and prohibitions he is to put into the grant. The Crown, by its Attorney-general, works out the whole matter. If you deprive the Attorney-general of his right in that respect, you deprive the Crown of its right too, and you put the whole matter into the hands of the Commissioners. The prayer of the petition and the application, and every thing else, goes to the Commissioners, and not to the Crown ; you take away all the prestige of the Crown, making the grant by Commissioners. The object of the next section is to make it absolute that the patent shall bear the date of the day of delivering the petition into such office, namely, the office of the Commissioners ; I have referred to that subject in my remarks upon the other Bill, and need not trouble your Lordships by repeating the same observations or the same evidence here. The 5th section provides the means of the rules being carried out ; what I have said already refers also to this section. And here I will call your Lordships' attention to one thing which I ought to have alluded to in speaking of the other Bill ; but as it arises upon this section, I may as well deal with it here. We are to have here a deposit paper also, describing the invention, placed either in the hands of the Attorney-general, the Home Office, or, according to the present section, with officers appointed by the Commissioners ; but from end to end of these Bills, there is nothing which points out what effect that document is to have upon the future specification which is enrolled, to the patent when granted. There is nothing to bring it to bear upon the patent ; you have nothing that the Judges can ground their judgment upon ; when the Act has passed, it is out of the hands of the Legislature ; the intention of the Act will be sought for by the Judges when it comes before them, without anything to guide their judgment. Here is a document which is now made a statutory document. The effect it is to have upon the real grant of the patent is nowhere shown, and the Judges must seek your Lordships' intention on that subject, without any light to guide them ; that is common to this Bill, and to the previous Bill also. There is no connexion between this document and the document which a patent would require, namely, a specification.

450. Is it competent to a party seeking to obtain a patent to go either before the Attorney or the Solicitor-general at his own pleasure ?

Yes.

451. Are parties, generally speaking, on that matter advised by you ?

I go either to the Attorney or Solicitor-general, as I may think proper. My usual practice has been, and that of my late partner also before me, to give the Attorney-general three documents, and the Solicitor-general two documents, but we are in no way required to do so. I might take all my documents to the Attorney-general or to the Solicitor-general.

452. Do you generally act upon that rule, without reference to the supposed competence of the two officers ?

I am governed by that consideration to this extent : if either the Attorney or Solicitor-general is more apt in one class of cases than another, I prefer placing that

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that particular class of documents before him. We find that that works exceedingly well, and there is an advantage in having this matter left open, so that we are not bound to go to the one or to the other; in this way, the officers get a benefit from the quantity of business they do; and the agents, if either of the officers is negligent, will take their documents to that officer who is diligent, because the agent's object is to have the business done quickly and well; therefore, there is a benefit in that, though I do not know that that benefit has ever been inquired into, or even thought of. I have thought of it myself for many years, and have acted upon it.

453. Without referring invidiously to individuals, you must have found considerable difference between the qualifications of different officers?

Yes; I should not hesitate to speak of any former Attorney-general or even the present Attorney-general on such a subject.

454. In matters of this kind, you must have had experience of some law officers who have been very little skilled in them?

We soon enable the Attorney and Solicitor-general to be capable of carrying the matter into practice. You must commence with the assumption that they are men of high understanding; therefore, if they will but bend their minds to it, there is no doubt but they will conquer any difficulties which may be found. I assure your Lordships, that if there is one man who had more disrespect for, and more want of interest in, the patent law than another, within my memory, it was the late Sir William Follett. When he commenced as Solicitor-general, there was a great indifference upon his mind with respect to such matters; he neglected them. Within a few weeks, however, after he had a few cases before him, he began to look into them, and at last he took such an interest in them, that he became one of the best patent lawyers that we ever had to deal with. That, more or less, occurs with every Solicitor or Attorney-general. We have found some men particularly apt the moment they start; others have been some time before they have fairly got into harness and understood it. The present Solicitor-general I went before almost within a few hours after his appointment. I never saw a man take things with more aptness in my life; but I found that he had been discussing with his predecessor these very questions; he had also been engaged in some patent causes; and hearing that as Solicitor-general he would have a good deal to do with such subjects, had led him to discuss the subject with his predecessor.

455. Does it not sometimes occur, that the law officers of the Crown are so overburdened with business of other descriptions, as to be unable to devote the necessary time and attention to patent cases?

Quite the reverse. In former times—in the time of Copley, in the time of Scarlett, in the time of Campbell—they had more public business to attend to than they now have, and yet we never had any delays in their offices which could be reasonably complained of. The way they do it is this: the questions which come before them are not difficult; they set apart from time to time certain days for hearing us, perhaps once or twice a week, as cases may arise requiring their attention; and they have successive appointments for patent cases, and they go through them. A patent case before them seldom lasts ten minutes on the average. The petitioner goes in, and brings the mind of the Attorney-general to the point he is discussing; the opponent goes in, and does the same. If they are represented by agents, they do not talk more than is necessary to bring the Attorney-general's mind to the exact point which is important; the Attorney-general hears both sides and decides, or recalls the first party, and goes into it a second time; but upon the average, I do not think patent inquiries of that kind last above ten minutes. The moment the opposing party opens his subject, the Attorney-general may often see that his invention has no relation to the other party's invention at all. Suppose the man says, "My invention applies to the boiling of sugar;" the other man comes in and says, "Mine refers to the means of extracting molasses from the sugar." Sometimes, however, cases will occupy several hours, because there are great difficulties in them; for instance, in the case of a lace machine, or a stocking machine, or a carpet loom, where there are considerable intricacies, the Attorney-general is obliged to bend his mind closely to the subject.

456. Are

456. Are the same fees payable in both cases?

Yes; the opposition fee is between 3*l.* and 4*l.*, and whether you occupy the Attorney-general an hour or two hours, or ten minutes, the fees are the same. Taking one with the other, some being very heavy cases, though the multitude are light cases, I do not think the Attorney-general or the Solicitor-general is overpaid for the amount of intelligence and attention he brings to bear on the subject.

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457. Practically, you think the other occupations of the Attorney-general or Solicitor-general never interfere with the proper performance of patent business?

Not in the slightest degree. Even in times when Attorneys-general were more occupied with public business than they now are, they used to have a multitude of cases from the Excise and Customs departments, which are now nearly removed from them; we never had any difficulty. Now that those public offices have less to do than they used to have, we have no difficulty whatever. If any set of men are overburdened with labour, it is the Master of the Rolls and the Lord Chancellor, and yet you are putting upon them, by the appointment of this Commission, a labour which there is no necessity for.

458. Are the Committee to understand that your general objection to this provision is to any person being substituted for the Attorney or Solicitor-general?

I have the strongest aversion to the idea of such a thing; I have already given your Lordships my opinion as to the receipt of the Queen's warrant being the Lord Chancellor's authority for sealing the patent. Then as to the non-fulfilment of certain conditions voiding the patent, those are the same as in the other Bill, and I need not trouble your Lordships any further with them. Then with reference to the 10th section, providing that the enrolments may be moved, that is already the law of the land. The substance of those provisions is the same as in the other Bill. With respect to the 11th section, I do not understand what the meaning of that is. It proposes that the register of specifications should be open for inspection at the Great Seal Office at all reasonable times; I suppose it is meant that the officers should have an additional office where the specifications may be seen; otherwise there is an inconsistency in the Bill, because at present there are no specifications at the Great Seal Office. You may now go in day by day and pay 1*s.*, and read the specifications. The next section makes it absolute that the specifications should be published and printed. Upon that I have no objection to urge; it would be the greatest convenience to me personally, as a professional man, though I do not think your Lordships ought to put the country to so large an expense for so few copies as could be required.

459. Are not the specifications published in America?

No; I have always had considerable difficulty in getting copies of specifications from there. In France they publish them all after a certain period, but then they become useless; it is not till they expire.

460. Supposing it to be intended that the specifications themselves should be transmitted to the Rolls Office, but that copies of the specifications should be registered in the Great Seal Patent Office, and kept there for the inspection of all persons who choose to see them; do you think that would be a more convenient arrangement than the one which now exists?

I do not think it would materially alter the present practice. The Master of the Rolls has, under a late statute, the power of moving the documents to any place he likes, for safe custody, and if he directs the Great Seal Patent Office to have them, I think he has the power of doing so; I do not mind where the documents are, so long as they are in safe custody; but I must say that there was a fire once took place in the Patent Office of America, and I do not see any reason why a fire should not take place in the Patent Office in London; and what a frightful position should we be in if all our specifications were destroyed by such a fire; therefore I can imagine that there would be an advantage in the original documents being kept in another office, which should be secure, and that copies should be kept at the Great Seal Patent Office or somewhere else.

461. You consider it to be a desirable provision in this Bill, that there should

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be copies of the specifications lodged in some place different from that in which the specifications themselves are deposited?

The specifications are returned to the parties at present; what is suggested is, that there should be two copies of a specification in two different places, so that the destruction of one should not be the destruction of the other; and it also carries with it another advantage: a short time back, a number of rolls, containing specifications, were stolen from the Petty Bag Office. Several of them have not been brought back. We do not know the position of a patentee who may have got his specification on those rolls at this present moment; had there been duplicates registered, so as to be readily copied again, without the possibility of their being tampered with, it would have been very desirable. I will give a practical instance of the effect of that: the other day my son had to read a specification for the purpose of communicating to me what it contained. He found a note upon the specification to this effect: no copies can be given of this specification, the roll having been stolen. There happened to be a copy brought back to us; but as it had evidently been altered subsequently to taking it out of this office, we have no record which can be relied on; that is the state of things in regard to that patentee. Supposing that patentee had to bring an action under this patent, he would have no means of doing it without an Act of Parliament.

462. Do you think it desirable that there should be a publication and printing of all specifications?

Personally, it would be of great service to me; but I could not recommend it.

463. What objection occurs to you?

The enormous cost.

464. The effect of the 11th clause in Lord Brougham's Bill would be to assimilate the practice in regard to patents to that which now prevails in regard to wills; namely, that the originals would never be produced to parties desiring to see them; but authenticated copies would be open to the inspection of the public?

The originals are not now open to the public; the original document is enrolled, and a copy is made from it. The original is endorsed by the proper officer, and returned to the party, and becomes one of his documents in the case. Now, by a late statute, the document, provided it has not been altered, is made evidence, the same as an official copy from the record.

465. Are those copies now always open to inspection?

Always; except upon a few holidays in the year, they are open to the public from the beginning to the end of every day.

466. Except upon the score of expense, do you think it would be desirable to have those specifications printed and published?

I cannot say that I think it would be desirable, except for the sake of a few of us who are obliged to read all the specifications; I do not see that there would be any public advantage from it. Though books stand in my office and other people's offices, in which a large number of specifications are published, very few inventors will take the trouble of even taking the books down, when we have given them an index of the different subjects into their hands. They would rather pay me and other professional men to go into the matter and report upon it, because then they have a report; which shows they have not trusted to their own judgment alone; and when they are dealing with other people, they can hand that report to them. It is a very difficult thing to induce inventors to look into and investigate subjects of that kind; even the patents are costly. Upon the 13th section, the question arises, which has been raised in a late case of a patent where the patentee had entered a disclaimer subsequently to the assignment of his patent. The question arises under the 5th & 6th of William the Fourth, whether a party having parted with his interest, or rather having parted with the legal estate in his patent—for he had not parted with his interest—was the proper party to enter a disclaimer to that over which he no longer possessed legal control. This section of the Bill does not appear to me to carry out the intention that it appears to have, namely, to remedy the supposed defects which have already been supposed to be ascertained in the existing state of the law.

467. If

467. If it did carry that intention into effect, do not you think it would be a very desirable enactment? *W. Campbell, Esq.*

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It involves so many questions of difficulty, as to who ought to be the party who shall alter a specification, that unless your Lordships are prepared to sit here for a considerable time, I shall hardly be able to bring the whole subject before you, simple as the question appears. The case which lately occurred was that of a patentee, after passing his legal estate to another, entering a disclaimer to a portion of the title of the patent. Objection was taken at the trial, that under the statute of the 5th & 6th of William the 4th, he was no longer capable of doing it, and not only under the statute of William the 4th, but also another section of another statute relating to the same subject, and the difficulty arises in construing those two sections. If this section were to be enacted without repealing the others, we should then have a section in the 5th & 6th of William the 4th, a section in another statute of Her present Majesty, and a section in the Act of 1851, if it should become an Act, all relating to the same subject, and none of them dealing with the subject completely from beginning to end. There would be a multiplication of legislation upon the same point, and one should not know how to construe the whole together. The difficulty in the case mentioned arises out of the construction which is to be put upon the statute of William the 4th, and the statute of Victoria, upon the same subject. Therefore, if there is to be any alteration of the kind suggested in the present Bill, I think the subject should be considered seriously all through, and that all the pre-existing Acts should be repealed, and a fresh enactment made, which should be made to work subject to all our present knowledge; otherwise this section is open to a great many constructions, comparing it with the preceding enactments; and I cannot conceive that this section would work. There is another difficulty at the end of the section, which is certainly a very serious one; the section proposes that the Commissioners, the Lord Chancellor or the Master of the Rolls being one of them, should be the parties to hear and determine in what cases an alteration or disclaimer ought to be admitted; the present practice being that the Attorney and Solicitor-general have the deciding of those cases, and, so far as my knowledge goes, they have decided them most admirably and most efficiently. No case which has come into question subsequent to their decision has been such as at all to show that the Attorney or Solicitor-general has been wanting in his duty; but here we should have a most serious question: in the case I have mentioned, the patent was taken out with a double title for improvements in the manufacture of gelatine, and in the machinery used in such manufacture. In working out the invention, and before the specification was enrolled, the inventor found that the machinery did not work efficiently, and therefore if he had put it into his patent, the patent would have been bad in the whole, because it was inefficient in part. If he had put it into his specification, he must have entered a disclaimer subsequently to the enrolment of the specification; but under the Act of William the 4th, he applied to Her Majesty's Solicitor-general for leave to disclaim so much of the title as was contained in the words "machinery used therein;" he obtained consent to do that immediately, because it was evidently a matter of course, and a thing that was necessary to be done before the specification was enrolled; the requirement for such like disclaimers do not arise till the drawing of the specification; that is at a late period of the six months, because, till inventors have arrived at maturity in their processes, they do not see to the drawing of their specifications. Had we had to apply to these Lords Commissioners, we must have been thrown over, for it would have been a hundred to one if we could have got before their Lordships in time. We must have done it by petition; we must have employed counsel, and had all sorts of difficulties to contend with; and the chances were, that at so late a period it would have been impossible to have got the Lord Chancellor or the Master of the Rolls to have considered the matter at all. If there are any set of men who have more upon their shoulders than others, the Lord Chancellor and the Master of the Rolls at the present time are those men; therefore I cannot conceive the propriety of removing this duty from the Attorney and Solicitor-general, when none of their decisions have been overruled or ever spoken of as wanting when they have come before the Courts of Law; therefore I object to this section, first, because it does not carry out the view which I imagine was intended by the parties drawing the section, of curing a supposed evil which now exists in a particular case; and secondly, it takes out of

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the hands of the Attorney and Solicitor-general a duty which is put upon them by statute, that duty having been well performed. With regard to the first portion of the subject, that it does not fulfil that which was intended, I would venture to suggest to your Lordships that it is a bad thing to legislate upon a subject which is still under litigation. It may be a defect, or it may not be a defect; when it is known to be an evil, then you may seek to remedy it.

468. Are there any other parts of the Bill to which you desire to refer?

The 15th section is open to the same objection that I have suggested as to the previous Bill, enacting that which is already the law of the land; it tends to mislead, but does not clear up any doubts which may exist. To my mind, no doubts do exist.

469. You consider it mischievous, as creating a doubt where no doubt exists?

It throws a doubt upon what is the state of the law in reference to those points which are not re-enacted. With respect to the 16th section, that is at present the law of the land, by the 5th & 6th of William the 4th; and here again you re-enact another portion of one of those statutes which are mentioned in the preceding section.

470. Your principal objection in this Bill is to the appointment of the Commission?

And to the consequences of doing away with the intervention of the Attorney-general. Practically speaking, neither of the Bills does much more than this: they both propose to have the patent started with a petition to go to the Queen, or an officer appointed for the purpose at the preliminary stages, to arrive either at the Attorney-general or the representative of the Attorney-general, according to which Bill we look at, to get the report; the report to be the groundwork of a Warrant, or of a Bill, to be signed by Her Majesty, all of which is the present law. The alteration which either of these Bills makes is to carry it to the Great Seal in some shape or other. Now it does appear to me that you do not want a heavy Bill like either of these to effect that object, if your Lordships think it to be necessary. It appears to me that there is a multiplicity of legislation here which will open questions which poor unfortunate patentees will have to fight out or get decisions on, and then we must act on those decisions. Of course patentees must act upon the best advice we can give them, till they can obtain those decisions.

471. Do you think the existing law satisfactory, or are there any alterations in it which you would suggest?

I have very little to suggest in the way of alteration beyond what I have already suggested. I believe the law could not be better than it is. Both these Bills are directed, not to dealing with the law of patents, or altering it materially, but to dealing with the practice of obtaining a patent. Your Lordships must keep those two propositions perfectly separate. I should like to shorten the time within which a patent might be passed. I think that it might be shorter if my Lord Privy Seal would allow documents to pass into and out of his office on all days, and at every hour of the day, so that we might get the patent sealed within a fortnight, and then I think it would be desirable to reduce the fees. I think the best direction of reducing the fees, without involving a new law upon which we must have decisions, would be to induce the Chancellor of the Exchequer, as he wants to give up fees in regard to this subject, to take off the stamps. After a patent gets beyond the Attorney-general's, the fees are almost all public fees, and not official fees.

472. Would you still retain the same number of stages in passing a patent?

I should not hesitate to do so, if we could go in and out of the offices and seal our patent in the course of a fortnight; I do not think, when the subject is thoroughly understood, that there is any objection whatever to the number of stages; they are by parties agitating this matter attenuated into a great number, but really they are very few; there is, first, the office of the Secretary of State for the Home Department; second, the Attorney-general's office; third and fourth, the Privy Seal and Signet Office; and fifth, the Great Seal Office; those are all the offices which at present exist. I have all along stated to your Lordships, that there is no evil which I should more seriously deprecate than having an unnecessary large amount of legislation. When a Bill has been passed into an Act,

we do not know what the value of that Act is till it has been tried over and over again in the Courts of Law. The value of Lord Brougham's Act of 1835 was not known for many years, and it was only known at an enormous cost to the various litigant parties ; therefore, so far as my own judgment goes, the less you legislate upon matters upon which legislation is not necessary, the better. I should always prefer to use present materials till they are positively found to be defective, rather than have a new law which will require a new construction. There is only one other matter which I should wish to bring before your Lordships' attention ; it is this, that a party may be subject to three suits pending in different Courts of Law at the same time. Suppose a party has a patent which is infringed, he proceeds in the Court of Chancery to obtain an injunction. The Lord Chancellor or the Vice-Chancellor, or the Master of the Rolls, sends the case down to the Common Law Courts to be tried ; pending the coming on of the trial, the opposing party issues a writ of *scire facias*, that is in another Court ; the consequence is, that a patentee is obliged to instruct a multitude of counsel, the same documents not being suitable for any two of the Courts. If any arrangement could be made by which such an amount of litigation could be stopped, it would be very desirable ; I throw that out as the greatest difficulty to which a patentee is now subjected.

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The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Monday next,
Two o'clock.

Die Lunæ, 12^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

PAUL RAPSEY HODGE, Esquire, is called in, and examined as follows :

P. R. Hodge, Esq.

12th May 1851.

473. YOU are a civil engineer ?

Yes.

474. Have you been an inventor in that capacity ?

I have been an inventor and practical engineer for about 25 years, and also a manufacturer of machinery.

475. And you have also acted as a patent agent ?

For about 20 years.

476. Are you acquainted with any other practice as to patents except the practice of this country ?

I am acquainted with the American practice ; I practised there about 16 years.

477. Have you any objection to the present system of passing patents ?

Most decidedly ; I think it is too complicated, to begin with, and too expensive ; I think, if we had a cheap patent law, many inventions among the operatives of this country, who very often are the real inventors, would be encouraged to take out patents. The present system is too complicated, and the process in passing patents is too lengthy and too expensive. I think there are many stages which should be dispensed with.

478. Do you think that, by dispensing with any of those stages, you would give a fair opportunity to opponents to be heard ?

I think opponents could be heard through a medium which we have not, but which the Americans have, that is, before examiners. Though patent agents generally do not agree with the system of examiners, I do not know why, I have always found it work well in the United States ; it corrects many evils which we have now existing in this country.

479. Will you state what, in your opinion, are the necessary stages in the present system ?

I think that an inventor should first make an affidavit of his invention, and as to his priority, as in the United States, and with two witnesses to verify it. He should deposit, with his first application, a rough description, to the detail of which he should not be bound, but generally describing his invention, and his patent should bear date from that application ; that would prevent any individual from robbing him of his invention. We find that practice to work well in the United States, from the fact that, if any question arise as to the priority of the invention, we may fall back upon the date of the affidavit, which may be taken before any magistrate. I think that should be the first step taken ; that would prevent many of the piracies we have in this country. No one but patent agents could tell your Lordships the number of piracies we have here in the interval between the date of the application and the patent.

480. You think the patent should bear date from the day of the application for it ?

Yes ; I think that it should be referred to a scientific Commission appointed
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P. R. Hodge, Esq. by the law officer of the Crown, to assist him in his judgment; and then, after that decision of the law officer of the Crown, I think it should go to the Great Seal.
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481. How would you constitute that scientific Board?

They should be chosen from the practical men of the country. With respect to the men who may be very good professors at a college, they have not always a thorough knowledge of mechanics. I think there should be two examiners upon machinery; one connected with general engineering, and the other conversant with machinery connected with fabrics. If you take a man from Leeds, for instance, where they are making flax and woollen machinery, and put him into a cotton-mill, he will know little or nothing about it. There are many little niceties connected with inventions which are all-important. Many machines I have known to be nearly completed, and to be waiting only for some small thing; and after waiting two or three years, the introduction of that little thing may make the whole of use. I will cite as an instance of that, Mr. Roberts' loom for producing plain silk fabrics; they were for years working upon the loom, but they wanted something to give the delicate effect that the hand gives in throwing up the warp. At length the introduction of a very trifling matter, as a piece of vulcanized rubber, effected what they wanted; but they were years waiting for it. Such an invention is of great importance to the manufactures of the country. I have paid considerable attention to the silk manufacture; I have, during these last five years, spent a great deal of time in France, and I find that the plain silks of Manchester are now sent to Lyons. Last year, having to wait for my passport at Boulogne till Monday morning, I went on board the steam-boat which leaves London with goods for Boulogne, and I found that the majority of packages constituting the cargo was plain silks for Paris, many of them being directed to Lyons. It is nothing but the improvement which we have made in the looms for weaving plain silks in Manchester, that gives us that advantage over the French. I say it is therefore a matter of great national importance; and although that little addition which was required for the loom might look trivial, we see the result of it, and feel it nationally; and I think a man is entitled to a patent for what may appear a small thing, as well as for a large one; every thing depends on the result.

482. You think that the check at present to the multiplication of patents is at present the delay and expense of obtaining them; and you wish to have substituted for the present system a scientific examination?

Yes; another reason I have is this: the patent agents, in London particularly, do a great deal of what is technically called "dodging." It is disreputable to our nation to suffer such practices; when a patent arrives at the Attorney-general's, very many of them have what they call standing "dishes," that is, a standing caveat for certain things, such as improvements in steam-engines, improvements in weaving, improvements in spinning, and other popular inventions; and it frequently happens that they have individuals to come to oppose, in order to get a fee for buying off their opposition, and for nothing else. We know that to be the fact, and that can only be prevented by laying down such rules as to keep out any such practice, by allowing the patent at once to come before a scientific body of examiners. It is impossible that the Attorney or Solicitor-general can be sufficiently scientific or sufficiently practical, however learned he may be in his own profession, to answer the purpose. I very often find it to be the case, also, that the Attorney and Solicitor-general are both of them very busy; they make an appointment for three o'clock; they have another appointment here at four; they have two or three examinations which ought to take a long time, and they often give judgments altogether against the interests of the inventors.

483. They have the power, at present, of calling in the advice of scientific persons, have not they?

They seldom or ever do it.

484. How do you propose to constitute such a body of examiners?

Entirely of practical men, as advisers of the law officers of the Crown.

485. You do not propose to supersede the law officers of the Crown?

Decidedly not. They should advise the law officers of the Crown, who might be guided in their judgment by such advice.

486. Is

486. Is there anything else which you consider objectionable in the practice of patent agents before the law officers of the Crown? *P. R. Hodge, Esq.*

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We seldom meet with opposition at the first stage. It is only at the Attorney-general's where we meet with opposition; and there it is where the evil exists, and a really great evil it is; I will cite an instance. Very recently a person, now resident in America, who is a British subject, but who has been in America many years, and has invented many useful improvements for exhausting and pumping fluids, sent his invention, with a certain title, to his brother, a merchant in London, who, being ignorant of the patent law, went to his solicitor and filed a caveat at the Solicitor-general's office, upon the old title under which the invention had been patented in the United States, which was a very good title. He then applied to a patent agent in London to assist him in passing his patent, who so altered the title, that when they came to prepare the specification, the invention could not be included under that title, from the manner in which it had been altered. Here is an evil existing, of allowing a patent agent to alter the title. They paid Her Majesty's Government 350*l.* for the patents for that invention, and they were almost useless. When they came to me to help them, I told them at once that the patent was useless, and that they would have to begin again. They said they could not believe that; but they had to begin again, and to apply for a new patent. We discovered that the patent agent who had altered the original title in such a way that the patent could not be specified under that title, in the interim between the original application and our beginning the new patent, although satisfied as to the merits of the original invention, took another client's retainer for the self-same thing. This is the practice which I want to stop. That is not the only instance; I could cite numberless instances in which patent agents have taken two clients, and sometimes three, for the self-same thing; but what can be done? The patent agent says, I have a client for that, and I refer you over to Mr. So-and-so. They have an individual in the house in the shape of a clerk or a partner, and they send the business of one client to him, and the principal takes the other client himself. It is commonly known at the Attorney-general's office, that a patent agent will oppose his own clients. In the case I have mentioned, I became the patentee's adviser in the matter, and we passed up another application as far as the Attorney-general's office, encountering an opposition from the person who was the second client of the agent in question; I opposed him at the Solicitor-general's office. A day for the hearing was appointed, when I thought it was necessary to have some additional strength in the matter, and we employed counsel. It was again put off, the patent agent being the means of putting it off. It was put off for about a fortnight. A hearing was appointed; the Solicitor-general was very busy, and it was referred to the Attorney-general. They had opposed us at the Attorney-general's office, and we had opposed them at the Solicitor-general's office. There were two oppositions, therefore. It was then referred to the judgment of the Attorney-general in both cases; we opposing them in the one case, and they opposing us in the other case. Judgment was given, but that judgment was secret. Now, I am very fearful, with all due deference to the Attorney-general, that those two inventions will come into contact with each other when these two inventions are specified. You see the necessity, therefore, of examiners. If a scientific body of examiners had been the advisers of the Attorney-general in that case, they would not have given a monopoly to two individuals, but would have given it to one only. The defect which existed would have been corrected. These kind of evils very often exist where two individuals come into contact at the Attorney-general's office. The Attorney-general does his best, but he is not supposed to know every thing connected with inventions; and very often difficulties follow, giving rise to frequent lawsuits. I think this could be prevented by having a scientific body of examiners. Here was a case where one patent agent took a patent for two clients, one or two of the matters being precisely the same; and yet after his first client had left him, in consequence of that, he opposes his own client at the Attorney-general's office.

487. Would not it be possible to act in the same way before the Board of Examiners?

No, I think not; I think the Board would be an entire preventive of such a practice.

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488. The difficulty you describe would not be so liable to occur if the party opposing were cognizant of the particulars of the invention which he came to oppose?

Decidedly not ; but secret examinations and secret judgments are very unsatisfactory at present.

489. It was stated to the Committee the other day, that if the opponent were put in possession of the invention of the petitioner for a patent, he having arrived at a certain stage with that information, would be able fraudulently to complete his own invention, and so defeat the rights of the actual inventor?

There has been a very good check put upon that, and, as far as the Attorney-general has been able to do it, he has prevented it in his office, by compelling the inventor to deposit at the Attorney-general's office, at that stage, a description of the invention, with drawings, where they are necessary.

490. Does that apply to a person who has taken out a caveat?

It does not apply to a person who has entered a caveat ; but if a person files a caveat at the Attorney-general's, he has notice of any application for a similar invention, and if he thinks it is going to interfere with him, he may oppose it.

491. It was stated that if you gave to the one man the knowledge of the other man's invention, he might have arrived so far towards that invention as that that knowledge would enable him fraudulently to represent himself before the Attorney-general as having completed the invention?

Decidedly that is so ; but that could be very easily provided for by what I have previously suggested, namely, by compelling them, when they make an affidavit, to annex to the affidavit a description, so as that the merits of the invention may be known, with a drawing, if necessary.

492. A person having entered a caveat, and opposing an application for a patent, would not succeed in his opposition, would he, upon the ground merely of his having himself thought of that invention before, unless he had in some manner published it?

By virtue of that caveat he may obtain priority. If, for instance, I had deposited a caveat at the Attorney-general's office for the improvement of the steam-engine, I should merely deposit it to give me a little further time to investigate the matter. Another individual, six months afterwards, not filing a caveat, but commencing a patent, and passing it up as far as the Attorney-general's, would have the start of me, so far as going through the first two stages, but I should have the power of opposing him, or else what is the use of a caveat? Sometimes we stop an application for a patent in that way. We enter a caveat, and if we find that a person is applying for the same thing as that which we have entered the caveat for, the Attorney-general stops the patent.

493. When do you think a patent ought to issue?

I think that after the examiners have reported upon the patent, the report should be published ; the patent should not be issued before that is done. I do not think the patent ought to be issued till the parties who are opposing know the nature of the report. I think the report of the scientific examiners and the decision of the Attorney-general should be published, and then, in my opinion, to prevent any objections to the examiners' report being final, there should be a Court of Appeal ; the examiners are liable to err in their judgment, of course ; they do so sometimes in America.

494. You would have two stages of inquiry, and two opportunities for opposition?

Yes.

495. What Court of Appeal would you establish?

That would be a matter which would be rather difficult to decide on. I think the Court of Appeal should consist of the law officers as well as of the scientific examiners.

496. You propose to constitute your original body of examiners of the law-officers of the Crown, and of scientific and practical men, do you not?

Yes.

497. Should

497. Should you propose in the Court of Appeal to make certain additions to those parties? *P. R. Hodge, Esq.*

Yes; there should be additions to the scientific body; at stated periods there should be additions to the scientific body; they should decide along with the law officers, and their decision should be positive and final.

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498. You mean that, after their decision, a patent should not be disputed in a court of justice?

It should not be disputed in a court of justice. It never creates any dissatisfaction in America; my experience goes to prove that it does not.

499. In case of a Court of Appeal of that nature being constituted, should you prefer that it should consist of a Board of Examiners, such as you have previously referred to, with an increased number of scientific persons upon it, or should it be a body such as the Judicial Committee of the Privy Council?

There would be no objection to a Committee of the Privy Council, because you would previously have had the decision of the scientific body.

500. Do you think the cost of obtaining a patent ought to be reduced?

I think the cost is very much too high.

501. What is the cost of a patent in America?

Seven pounds.

502. Will you state generally what is the practice of passing patents in America?

The practice is simply an application, with an affidavit attached to it, verified by two witnesses before any sitting magistrate, with a description of the invention; this the party sends to the Patent Office at Washington. He is then allowed sufficient time to send in his specification. He is compelled, in the first instance, to pay the money into the United States' Treasury Bank, from which he gets a receipt, which receipt he forwards with the first application. The specification is then sent on with the drawings; the Board of Scientific Examiners takes it up in its proper order. The application may be, for example, for an improvement in weaving; it may comprise six claims; the first and second claims the examiners may state are original, in their judgment, referring to the indices of inventions for their information. The third claim they may state, in their opinion, is not new, having been invented by a person in England, and referring to such a work as their authority. The report is enclosed with the description and the drawings, and sent on to Washington, and the patent is issued from there; but if the parties are dissatisfied, or think the judgment is given without proper grounds for it, there is a means of appeal.

503. That investigation is made by scientific gentlemen?

Yes, scientific examiners.

504. Do they exercise a discretion as to the utility of the patent?

No; I do not think it is necessary for a scientific body of examiners to exercise any discretion as to utility.

505. Nothing but the novelty?

Nothing but the novelty.

506. How is this body of examiners appointed?

By the Government; they are sworn officers under the Government.

507. Are they appointed for life, or for a period of years?

For a period of years.

508. Does the duty employ their whole time?

Their whole time.

509. Is it a body sitting at Washington?

At Washington,

510. Is the number of patents issued under that system very numerous?

Very numerous; and great benefit arises to the country as well as to the individuals applying for patents. The scientific body is a great check upon useless patents; many trifling applications are made, but they are very often refused. If, however, a suggestion is new, it may lead to something else; the

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inventor may be stimulated to go on and invent something which is useful, if under the encouragement of a monopoly being granted, because the cost of obtaining the patent is trifling.

511. Is there any publication made, or any list kept of the applications?
 Yes; a publication is issued every month.

512. In what form?

In the form of a circular; you can have them by writing to the Patent Office; they are sent back to you post free.

513. Is that a good record?

Yes; and then there is the annual report of the Commissioners of Patents.

514. Are the specifications given, or abstracts of the specifications?

Abstracts of the specifications; there are also many scientific journals published in that country, in which all the specifications are contained.

515. Are all applications published, as well those which are rejected as those which are granted?

Not those rejected, only those which are granted.

516. Are the specifications divided into classes?

They are only divided into classes in the Patent Office, not in the index.

517. Whose business is it to make the abstracts?

They are generally made by the agents; the inventor generally thinks it to his interest to publish the specification; the Government do not publish the specifications, but in the Patent Office they are altogether for any one to examine.

518. Have you ever heard any complaints made of the number of patents existing in America?

Never; the patents there are very numerous, but they are generally for useful inventions. My reason for recommending cheap patents is my experience in that country; the real inventors are generally operatives, practical men. I can cite an instance of a spinning-machine which has been bought for 6,000*l.*, which was invented by a journeyman who worked under me for 10 years. We used very often to laugh at this man's assertion that he would make a better spinning-machine than Mr. Danforth's, with whom he served his time; and this improved machine is now in the Exhibition. My experience in America goes to prove that practical men, and operatives themselves, if they are encouraged, are the very men to invent, and not the employers.

519. Was this invention, which you say was made in America, patented originally in America?

Yes, it was patented originally in America, and then patented here.

520. Do you think that the operation of the patent laws in this country would have prevented that individual bringing forward his invention in this country?

Decidedly, had he been a British subject resident here.

521. How would the patent law have prevented his bringing forward his invention?

In consequence of the expense.

522. You think the most valuable inventions are made by the persons who discover them in the exercise of their own employment?

Yes.

523. Do you think that patent protection is necessary to create an inventive tendency in labourers?

Decidedly.

524. You think they will not invent if they have not the prospect of patent protection?

You must give them some stimulus, and that is derived from the monopoly which the patent creates.

525. Have not the workmen been frequently the inventors of improvements in the manufactures of this country?

Very

Very often we find it to be the case ; but though the workman has been the inventor, the employer is the only one benefited by it. Sometimes the workman meets with a liberal employer ; I can cite to your Lordships an instance of Messrs. Sharpe, of Manchester, who gave Mr. Hill, at the head of their loom department, 2,000*l.* or 3,000*l.* for an improvement in a carpet loom. This Mr. Hill found a liberal employer, and he was liberally paid, but it is not the case generally.

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526. I understood you to say that the expense of patents in this country precludes operatives from taking them out, but you nevertheless admit that operatives in this country do invent ?

They are generally the inventors ; if a suggestion is made in a manufacture, it is generally made by an operative.

527. As operatives are the inventors in this country, this being a country in which operatives cannot take out patents in consequence of the expense, does not it follow that the patent laws are not a necessary ingredient in the production of invention ?

No ; I think the patent law is a necessary ingredient in invention, inasmuch as it is the monopoly which you give the inventor which leads him to make his invention. It is the hope of making something from his thoughts and his labour.

528. My question has reference to the absolute facts before us, and not to general reasonings ; have you not stated that operatives in this country are unable to take out patents in consequence of the expensiveness of doing so ?

Yes.

529. Therefore operatives in this country are not able to avail themselves of the patent laws ?

Decidedly.

530. Notwithstanding that, I understand you to admit that operatives in this country are to a great extent the inventors ?

They are sometimes found to be inventors in this country, but are not always acknowledged to be the inventors ; generally, inventions come from the operatives.

531. The object of the question was to ascertain whether in a country in which operatives cannot have the benefit of the patent laws, they still continue to be inventors ?

I do not think they would be inventors to the same extent, but for the patent laws.

532. Are they not the inventors in this country at this moment ?

I do not think they are so often the inventors as they are in the United States, where they have cheap protection.

533. Is not it the fact that in this country operatives are largely inventors ?

They are not acknowledged to be so ; it is my opinion that they are generally the inventors of improvements which occur in the manufacture. The master is apprized of it ; the master, seeing the benefit of it, takes out a patent, and I believe the decisions in the Courts of England are such as to deprive the operative of having any advantage, provided it is proved that he is the servant of the manufacturer.

534. Operatives are, in your opinion, large inventors in this country, but their inventions are brought out under the name or reputation of the master ; does not it follow that inventions would be made by operatives, though the operatives had not the benefit or the stimulus of patent law protection ?

I think not ; I was once an operative myself, and I can speak from my own experience ; if I had no hope of protection, and no hope of deriving benefit from my thoughts and my labour, all I should do would be to go on mechanically with my occupation, as I had been accustomed to do.

535. Is not it your opinion that giving greater facilities, greater cheapness for obtaining patents, and diminishing the cost of doing so, will produce a greater number of inventions from operatives themselves ?

Yes.

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536. From your experience in America, where the expense of obtaining patents is small, do you find many more inventions produced by operatives there than in this country?

Yes.

537. Is not it generally the case in this country that operatives who have made some invention are obliged to get the assistance of some persons with large pecuniary means to enable them to carry it into effect?

It is very commonly the case.

538. You stated that you are yourself a civil engineer?

Yes.

539. I presume, extensively acquainted with the progressive advance of improvements in machinery?

Yes.

540. Do you think that the term "inventor," which has been frequently used in your evidence, can with truth and safety be applied to the identification of any person as the inventor of a certain thing which admits practically of being gradually developed?

I think the term is quite applicable to an individual, if he is the discoverer of a new improvement or a new combination of materials for producing certain effects; I think he should be considered the inventor.

541. My question again is not with regard to the abstract inquiry whether the discoverer of any principle, or any application of a principle, is what is properly called an inventor, but whether the progress of improvement is not so continuous, and subdivided into so many steps in its course, that there is great difficulty in saying with safety and truth that any particular person is the inventor of any given improvement?

I think not; I do not think that that difficulty would be found to exist by a proper Commission, composed of practical men, who have a thorough knowledge of practical matters. If the Commission comprised a practical man on spinning and another on weaving, and another on steam-engines and general machinery, you would have a proper check upon that, I think.

542. Is not it the fact that that which we perceive at recurring periods to be a great improvement in the great processes of this country is an improvement effected not so much by any separate, distinct and great steps of improvement, as it is by a continuous application and new modifications of improvements, each very minute and inconsiderable in itself, but in the aggregate producing an important result?

Most of the great improvements in our country arose from small matters, the whole together making a great whole; particularly in the production of our fabrics; it is very rarely that we find any large or great improvement at once. The present spinning machinery which we now use is supposed to be a compound of about 800 inventions. The present carding machinery is a compound of about 60 patents.

543. Was not the card the result of one invention of Mr. Dyer?

The card originally was invented by an American, and patented by Mr. Dyer; but we have had many improvements upon the machine. In the case of the card, likewise, a little addition has recently come out by an American, a Mr. Calvert, who used to be a journeyman in the establishment which I superintended in the United States; I met him accidentally at Manchester, at Mr. Lewis's; he has recently brought out an invention which does away altogether with the card leather and the wire; he inserts the carding wire with its teeth into a cast-iron cylinder; that invention secures truth, permanence and sharpness, and lays the fibre with greater evenness and uniformity.

544. Is that the machine which is now at work in the Exhibition?

There is one of those machines in the Exhibition. I think that the application of his idea to the ginning of cotton will do a vast deal of good in India. The present cotton-gin, what is termed a saw-gin, is not so effective as the machine of Mr. Calvert; he came here with the invention, and has sold it for between 8,000*l.* and 9,000*l.* The first year he was here he gained little or nothing at all. This is another instance showing that the best and most valuable inventions do emanate from

from practical men, and this does not produce any bad effects in our manufactures ; it does not throw aside the old cards, but it only requires the manufacturer to take out the old carding cylinder and put in the new ones.

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545. In your opinion, would the improvements, which you say have been the subjects of 800 patents, have been discovered without the stimulus of the patent laws ?

No.

546. If as many as 800 small inventions combine to produce that which we may call one great machine, do you think it desirable that there should be a patent for every one of those small suggestions ?

Decidedly ; I will give another instance of it : here is an invention now brought to this country from America, which hangs up in the American department of the Exhibition ; it is a flyer for an ordinary throstle-frame ; the present flyer being made of solid steel, having a great deal of spring with it, the law of centrifugal force, by driving it at a great velocity, expands the flyer ; but this inventor has made the steel flyer a hollow tube of less weight, and not so liable to spring, hence he is able to increase the velocity nearly one-third ; every spindle does, therefore, one-third more work. In one mill at Manchester, that of Messrs. Burley, they have 70,000 spindles, so that if you add one-third to the work they do, it will be seen to be of great national importance ; every spindle is producing so many yards per minute ; multiply that by the number of spindles in the mill, and add one-third to that, and the advantage which is obtained by the invention will be evident.

547. This is an improvement which suggested itself to a practical man engaged in that manufacture ?

Yes, decidedly.

548. That man is, by the present law, debarred from taking out a patent in consequence of the difficulties which stand in the way of his doing so ?

Decidedly.

549. Would it not be worth his while to communicate to his master that he had an invention which would enable him to use the spindles in his mill with one-third more effect in the course of the day than he does at present ?

I think if that man knew he would receive no protection, he would not make any suggestions.

550. Would not it be worth the while of the master to compensate him for the communication of his secret, though he only had the exclusive use of it for a period of six months ?

I fear masters generally are very uncharitable to their workmen ; their object being gained, the workmen receive just sufficient to enable them to live from hand to mouth.

551. I am not talking of a subsequent reward ; but would not it be worth the while of the master to make a promise of a certain sum of money, to induce the workman to tell him that which would make the spindles in his mill one-third more serviceable than before ?

If you could induce the master to do that, there would be no occasion for the patent law.

552. Is not it the fact, that the operative has frequently an exaggerated idea of the value and importance of his own discovery ?

That is true.

553. Is not it the fact, that a great many improvements in the cotton machinery have been obtained from America ?

A great many.

554. Do you attribute that in any degree to the greater facility which exists of obtaining patents in America ?

Yes.

555. Can you give the Committee any particular instance which has come to your knowledge, where any invention or improvement of great value has either been prevented from being carried into execution, or has been postponed

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for

P. R. Hodge, Esq. for any considerable time, in consequence of the operation of the patent laws in this country?

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It is almost of daily occurrence; I know it is the case with many inventions now; I was informed by Mr. Richard Roberts, of Manchester, last week, that in consequence of the great cost of patents, he has locked-up four or five of the most valuable inventions he ever invented in his life; he says, were I to go and spend the sum of money which the Government require to obtain these patents, I should have no money at my banker's.

556. Do you think that there ought to be any limit to the minuteness of the invention which should be entitled to a patent?

I hold a different opinion upon the subject to most patent agents, but being an inventor myself, and knowing the difficulties of inventions, I think the invention should lie open for a certain time for additions to be made to it, at the discretion of the examiners. Those examiners would be competent to judge whether it was necessary to allow the specification to lie open for a certain time for additions. A patent might be allowed to the patentee for the first discovery, and then, if he adds another thing within one year (for I think that should be the limit), by a proper application to the examiners, and upon showing what the addition is, and that it is a part of the same machine, and essential to that machine, I think he should be allowed to make that little addition, and not be thrown back upon the great cost of another patent. Many important inventions take a long time to complete.

557. With respect to the great multiplicity of small inventions, which combine to produce a definite and important result, if a patent were granted for every one of those small inventions, do you not think that there must be great danger of those patents interfering with each other, and interfering also by blocking up the path to further discovery?

No; I think that a proper scientific Commission, as I before stated, would prevent any difficulty arising hereafter. That scientific Commission would be cognizant of every little intricacy connected with those machines.

558. Is it not now a ground of general observation and complaint among civil engineers, that they do practically experience that evil?

Civil engineers may say so, but there are a great many civil engineers who are not mechanical engineers. The vitality of the profession, I think, consists in the knowledge of mechanical engineering. We find that the most eminent men among engineers have been practical men before they became civil engineers.

559. Should you feel confident that no civil engineer would give evidence of the nature which has been just alluded to before this Committee, if he had been himself acquainted with all the mechanical details of engineering?

I cannot venture to say so; it is only my opinion.

560. What do you consider to be the great good aimed at by the patent laws?

The great good aimed at by the patent laws of any country is to acquire superiority in their means of producing and manufacture.

561. Through what medium?

Through the encouragement given to the inventor.

562. You look upon the benefit of the patent laws to be their tendency to stimulate inventions?

Decidedly.

563. And you think that the extension of patent privileges to the minutest inventions would not interfere with future inventions?

Decidedly not. In my experience I have found that a very complicated machine, producing wonderful results, is generally a bad patent for the inventor; it has cost him a great deal of time, a great deal of thought, and a great deal of money. There are not many of such machines wanted; but an improvement of the pin-machine or an improvement in spinning, though minute, will produce great effects in itself, and increase our means of production, and generally benefit the manufacturer, if not the inventor, and the consumer most of all.

564. Under

564. Under the present system of the patent laws, do you believe that the body of useful inventors has received benefit to a greater amount than it has sustained loss ? *P. R. Hodge, Esq.*
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I think that, under the present system, and in consequence of the high cost of patents, we have not half as many inventions as we should have if we had cheap patent law.

565. Has more money been gained or lost by the patentees of useful inventions under the present system, in your opinion ?

Many inventors have been ruined in consequence of taking out patents under the present system ; whatever amount the patent has cost the inventor, it may be assailed the very next hour. I can refer to a case in which a patent was tried before a special jury ; upon their decision being given, the patentee went out of Court, saying he was a ruined man ; and if he had not had a few friends to come and support him, he would have been ruined. If Government had appointed a Board of Examiners to examine his patent, and to show him that it was not quite original, and that there was a little infringement upon another patent, he would not have had occasion to go to this great cost.

566. The evil of one patent interfering with and dovetailing, as it were, into another, you propose to remedy by the appointment of a scientific Board, competent distinctly and accurately to define the limits of the invention to an extent which the inventor himself is unable to do ?

Yes, decidedly. Inventors are a very curious body of men ; they sometimes fancy strange things, as happened in a case brought to me last week, where an inventor who came into my office fancied he had invented half-a-dozen things, and that he could put them all under one patent. There are some patents with 15 or 16 things put in under one title, which by a proper provision in the new law might be confined to one invention. The most ingenious man who can make out the most ingenious and best title, is the best man now for a patent agent, regardless of the trouble he may bring upon the inventor hereafter.

567. With regard to the machine which you mention, which was compounded of 800 inventions, within what period would those 800 inventions have been applied to that machine ?

Since the days of Arkwright ; he was the first man who made the ordinary flyer and spindle ; that was about 70 years ago.

568. If 700 or 800 inventions could be successfully applied to a machine of that description within 70 years, that machine now being brought to great perfection, would not you consider that as a proof that the granting of patents for minute inventions, tending to the completion of a great machine, afforded no considerable impediment to the progress of improvement ?

It affords no impediment to the progress of the arts generally, but is rather an encouragement.

569. Do you not think that manufacturers find an impediment in introducing trifling improvements into their manufactures to arise from the doubt which exists in their minds as to whether they are infringing patents or not ?

No ; the inventions are generally bought up by machine-makers. A small license-due put on per spindle or per machine of any kind, pays the machine-maker, and the manufacturer of the fabric has generally nothing to do with the patent.

570. In every large spinning concern in Lancashire, improvements in machinery, each improvement being very minute in its character and detail, are in constant progress ?

Yes.

571. If many of those improvements are patented, does not it necessarily follow that the exclusive rights belonging to those numerous patents must create a considerable impediment to the free action of the mind, either of the master or of the operative, in those mills, in day by day suggesting the little improvements which they are continually making ?

No ; I think the master is not the inventor, it is the operative. If it be a spinner or a workman who has invented some little improvement, they are not generally greedy ; they do not monopolize it themselves ; but they say to the

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machine-maker, "This is my improvement upon my throstle or my card ; I have derived certain advantages from it ; give me so much per machine, and you may make it for whom you please." I do not know any instance where they have reserved a particular invention to themselves ; they throw it open, receiving a small license-due per machine or per spindle, which pays them very handsomely.

572. Do you consider it desirable that the whole cost of a patent should be paid at once ?

No, I think not ; I think it should be paid periodically, at two or three periods, not exceeding three.

573. What is your reason for that opinion ?

I think that any inventor can raise a small sum of money ; any one will lend it to him, if there be anything in his invention, and the examiners reported favourably upon it. Should the examiners report favourably, I think it will be very easy for him to raise a small sum of money ; but to raise a large sum of money, such as 350*l.*, to pay his fees to the Government, is difficult. We find that many people have been injured by bad patents, and they are afraid of lending money upon good ones ; but if this scientific Commission reported favourably, it would give them some encouragement.

574. Do you contemplate that this Commission should report, not only as to the originality of the invention, but as to its probable success ?

No ; the fact of the scientific Commission acknowledging it to be original is quite sufficient ; that report to the law officers of the Crown is quite sufficient.

575. Those periodical payments would also have the advantage of preventing useless patents becoming an obstruction to advantageous ones, would they not ?

Yes. If after the first two or three years an inventor found his patent useless, he would not make the second payment ; the patent would consequently drop, and that would throw the idea open for another to make or introduce his improvement upon it.

576. Do you conceive that the proper functions of this Commission should be, not to give an opinion as to the importance or utility of the patent, but only as to the novelty of it ?

As to the novelty only.

577. In a former part of your evidence, you stated that the effect of requiring the money to be paid in instalments would be to put an end to a great number of useless inventions ?

Yes ; I think that that would be the effect of the process which I have now stated, of paying the money in two instalments. The first payment, perhaps, should be a sum of 20*l.*, the next payment being made at the end of one or two years.

578. You said that by the existing practice parties had lost so much by advancing money upon bad patents, that it was difficult to procure advances even upon good ones ; what do you understand by a bad patent ?

There are a good many inventions which are wholly useless ; the money advanced upon them, therefore, is thrown away.

579. In what way would that difficulty be removed, if the Commissioners were only to report upon the novelty of the invention ?

I think the sum required at first being so small, and the party being allowed a period of two years for making further experiments before he was required to pay the second instalment, persons would be willing to advance that small sum which was required to obtain the patent at first, and then, if it were not found, to answer, the second payment would not be made, and the patent would be at an end. There are many patents upon which very large sums indeed are lost.

580. You said that they have indices to the specifications which they now publish in America ?

Their system in the Patent Office in America is a very good one. They have indices of all the patents of every country throughout the world where patents are granted ; and they have them so beautifully arranged, that if it is an improvement in looms or in steam-engines, they can go and refer to such improvements at once. The law distinctly says, we will give no monopoly for any

any invention which has been heretofore known in this or any other country. Parties go, therefore, to those indices, and refer to the various journals, and find out that there has been an invention on the same subject in Germany, France, England or elsewhere, which has been reported in a foreign publication, or an invention in Manchester in England, which has been published in an English publication.

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581. In this country, have you any difficulty in referring to the private indices of specifications which exist here?

None.

582. Are those private indices much to be relied on?

Yes, I think they are; there is one which is very much to be relied on, which is that of Mr. Bennett Woodcroft; he spent many years in getting up a list of patents, and it would be very proper for the Government to purchase that list.

583. Is the patent law of America the same in all the States?

Yes; it is a United States law.

584. And there is one office for the whole Union?

Yes, there is a central office at Washington.

585. Upon what authority is a patent granted?

There is this Board of Examiners which I have mentioned, and above them there is a Patent Law Commissioner.

586. Are the scientific persons that you have referred to, appointed specially for the particular examination of each case?

For the examination of all the cases; they are appointed by the President. When a new President comes into office, he will sometimes change them, but not often. Those scientific men have a salary, I think, of 3,000 dollars a year.

587. What class of persons are they?

One of them is a chemist; three of them are connected with manufacturing art.

588. Do you mean that they possess a practical knowledge of machinery?

Yes.

589. Is the time of those scientific persons exclusively given to the examination of patents?

Yes; they are appointed by the Government for that purpose. There is then a Patent Law Commissioner, who fills the place of the law officers of the Crown here.

590. Is the Patent Law Commissioner a lawyer?

He is generally a lawyer.

591. You think that there ought to be patent privileges given to every applicant for them, adequate care being taken to ascertain that his invention is novel?

Yes.

592. That being the only restriction?

Yes.

593. Is there any advantage in the present system, of requiring three patents to be taken out for England, Ireland and Scotland?

No advantage at all, but, on the contrary, very great disadvantages; I can give your Lordships an instance of that. The machine for making type was imported into England from the United States; it was patented in England; the cost of the patent was very considerable; it cost a large sum of money to get the machines here, and to make experiments. But there is a peculiar monopoly among the type-founders of London, who not only keep the price of type up at a very high rate, but prevent any improvements in the making of type. They offered a certain sum of money for this invention here; the parties thinking they could get more, and not knowing the peculiar monopoly which existed, refused it. The type-founders then had a meeting, and said, "We will not buy your machine at all." The machine, therefore, is locked up to this hour; I have

P. R. Hodge, Esq. it in my possession; but that machine is worked in Glasgow without a Scotch patent, and the types are sent to this country; and so again in Ireland; they are just commencing the manufacture of type there.

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594. Have you ever known instances of patents being bought up by the previous patentees of a similar invention, in order not to have their own inventions competed with?

Sometimes it is the case; I will cite an instance; I advised a party in England to buy two American locks, which are now here in the Exhibition; I considered that the lock sold by that party was not so secure a lock as many that I knew of. He did not seem to think much of my opinion. I advised him to purchase those locks because of their additions to his original lock.

595. Could not he make use of those additions without doing so?

No; they are now patented in this country; therefore I advised him to buy those patents. If I were advising a spinner, and I found he was only producing so much, and I knew of an invention which was producing 10 per cent. more, I should recommend him to buy it, with a view of using it.

596. Is it ever the case that such patents are bought up with a view of not using them?

Sometimes it is the case. I do not know of any instance at present, but I think it is the case. A great evil arises from patentees being allowed to make their specifications too general; we have evidence of that in all our shoe-shops in London. The American India-rubber shoes, and many other of their articles, are superior to ours. It is in consequence of the patent which is held by a wealthy company in Manchester, claiming in their patent the use of India-rubber generally for braces, coats, gloves, shoes and other articles. But where there is such a general specification it shuts out almost everybody else; therefore, I should say that the patent should be required to be more specific. The parties should specify what their improvements really are intended to be, and they should be confined to that point. In America they compel you to be very specific in stating what your proposed improvement is; if it is in the making of shoes, you must state it to be so. With reference to this manufacture, I advised one of the partners some years ago to go out to America, or send some intelligent men out, and bring some clever workmen over to introduce it here; he laughed at me then, but he does not laugh at me now. They have allowed it to go on so far, that there is now an American company settled in Wiltshire, for the purpose of making India-rubber goods.

597. Is that an infringement of the patent?

I refer to it, as showing the necessity of making every one who applies for a patent specify the particulars of it.

598. Do not the circumstances which you have just stated with reference to the India-rubber patent, which the Manchester company possess, tend to show that the existence of the patent in that case does obstruct the progress of useful improvement in this country?

Only by the patent being too general.

599. As patents now exist in this country, you admit them to be a considerable obstruction in many cases to the progress of improvement?

This is one instance.

600. Is not that one instance, the principle pervading which is applicable very generally?

I think not. A corrective of the evil would be, compelling inventors to be specific in their specifications, and not to claim too many things. These parties claimed the application of India-rubber to those things to which they did not apply it for many years. I think you should compel them to be specific.

601. Would you limit the application to one particular manufacture, although the invention professed to be the reduction of a substance to such a state as to adapt it to a variety of manufactures?

They should prove to the examiners what their invention really was, and how far they had gone in their invention; at that stage I would stop them; and then if any one came and showed that he had invented an improvement upon theirs, I would give him a patent for that improvement.

602. When

602. When you speak of an improvement, do you mean that you would make it a part of the duty of the Commissioners that they should determine whether such and such inventions were improvements or not?

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I should not leave it to the Commission; I should empower the Commission to limit the extent of the specification; applicants should prove to the Commission that they had gone so far with their invention.

603. When you speak of improvements, you mean simply novelties, do you not?

I simply mean novelties. If it were a patent for making India-rubber cloth, and the parties had never made boots and shoes before, and did not apply for a patent for making boots and shoes, they should not be allowed to claim the making of boots and shoes till they could prove to the Commission that they had made an improvement in the manufacture of boots and shoes.

604. If you could see established a really competent tribunal, whose business it should be, in the first place, to decide whether the contrivance was a novelty, and in the next place to have that novelty strictly described, that, in your opinion, would be the best form of patent law?

Decidedly. The great evil we have now to contend with is, that the patents are not specific; their titles are not specific; and there is as much evil arising from a bad title as from a bad specification; the specification belies, in fact, the title.

605. Does not drawing up a specification require great legal knowledge as well as scientific knowledge?

It requires great legal knowledge to settle a specification; I generally refer them to a barrister.

606. Would not this scientific Board be sometimes at a loss with regard to legal questions which arise in construing a specification?

I think the law officer of the Crown is sufficient for that.

607. Do you propose that they should act together, or should the Commissioners report to the law officer?

I think the duty of settling the specification should be referred to some competent barrister; it is a great portion of Mr. Webster's business to settle specifications. We never pretend to settle specifications without saying to our clients, you had better have counsel's opinion upon this; it is sometimes very difficult for counsel to advise upon specifications.

608. With regard to the novelty of the invention, has not the loss in the case of most patents arisen from the want of novelty in the invention?

Yes.

609. I presume it is your opinion that a patent, when once granted, should not be open to litigation upon the ground of want of novelty, or the insufficiency of the specification?

Certainly.

610. But there ought to be a tribunal constituted by the Legislature which should take upon itself the responsibility of having that matter settled before the patent is granted?

Yes; I think that by giving them sufficient time they would be fully able to judge on such a subject.

611. Is the time for which patents are granted in the United States the same as in this country?

Yes; and with respect to renewals, they do the same there as they do here; they renew the patent for five or six years, according to their judgment, upon evidence being produced that the inventor has not benefited sufficiently by the invention, which is very often the case; it is very often the case that the inventor is unable to get his patent into use for many years after the patent is granted.

612. The rule on that subject is the same in the United States as it is here?

Yes.

613. Suppose the system you have proposed were adopted in this country; in the case of a man who had taken out a patent under the proposed system, and

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had paid a small sum of money for the original or provisional patent, when the period arrived for paying the additional sum to secure it, do you suppose that additional sum would be generally paid?

Decidedly; parties would pay the additional sum when they saw it was for their benefit, and that the invention was worth something, or likely to become valuable.

614. I understand you to say that it is often a long time before persons can bring an invention into use so as to make it profitable?

They might be stimulated by the results of their invention, and might see that time was only required to bring it into use. Real practical machinists and engineers meet with difficulties, but they surmount them, though they require time to do so; they are not like inventors, who lack the knowledge of first principles.

615. Are additional payments made in America at fixed periods?

No; the sum is all paid at once into the United States Bank at New York, or Philadelphia or Boston; and a receipt is given, and that receipt is forwarded with the application.

616. Should you propose to adopt a different practice in this country?

Yes; I propose it mainly in consequence of the sum being much larger in this country; if patents were made as cheap in this country as they are in America or France, I think an inventor could pay the whole sum at once.

617. You would not object, though the sum paid were so much smaller, to give the patentee the same period during which his patent should be in operation?

No.

618. Do you see any practical inconvenience in excluding the colonies from patents granted for the United Kingdom?

I think the colonies are now getting to some importance, particularly Canada. I have known many inventions which have been patented in Canada by the colonial law; anything invented in the colony may obtain protection, and that has been very beneficial to inventors; I know many inventions in agricultural implements which have generally paid very well; if an invention is useful, it generally answers to take out a patent for it.

619. Is the local law in Canada different from the law in this country?

Yes.

620. In what respect?

The cost of a patent is much less; I think the cost is about 7*l*.

621. Are patents granted in Canada under colonial enactments?

Under colonial enactments.

622. If a patent were useful for a colony, it would be cheaper to take it out in the colony itself, than to take it out here in connexion with a patent for this country, would it not?

Decidedly; I think the patentee ought to take out the patent in the colony.

623. Would you leave the granting of patents in the colonies to the colonial legislature in all cases?

Yes.

624. Does the existing patent law in the United States give general satisfaction both to inventors and to the public?

To both inventors and the public.

625. Is that the case in Canada?

I could not speak so correctly upon that subject; I have been engaged upon public works in Canada, and I have known inventors who have patented an invention in the colonies, and have benefited by it.

626. Do you hold the opinion which several witnesses have expressed before this Committee, that patents might be too easily obtained?

I do not think that would be an objection, provided there were a proper check put by the scientific Commissioners upon them; that is the only necessary check that I see; if the Commissioners see that an invention is novel, it is not for the

Commissioners

Commissioners to say you cannot make money out of it, or you cannot do anything with it, it is not of any benefit to you or to the country; their business should be to say whether it is novel; it is the business of the inventor to see whether he can make any pecuniary benefit of it; once an inventor came to me with an instrument merely to clasp on to a candle, made of common tin with a spring to it, so that when a party went to bed he would place this upon the candle, and thereby extinguish it after any period he pleased; he patented these things, and put up machinery for producing them, and they were sold at one cent a piece in the United States; that man, I think, was entitled to a monopoly for that instrument, small as it is; it prevented many houses from catching fire, and it gave many individuals a degree of comfort which they had not before.

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627. The only check you would put upon the granting of patents would be the opinion of the examiners as to the novelty of the invention, and not as to its value?

As to its novelty only. I do not think the examiners should interfere with the usefulness of the invention.

628. You do not consider that a patent for an invention, however apparently minute or trifling, involves such danger of indirect inconvenience or injury to the public as to justify the Legislature in requiring, before it grants a patent, some evidence of its utility to overbalance the supposed evil of the monopoly?

Exactly so; I think the more simple a thing is, the more it is used, and the more benefit accrues from it.

629. Do you approve of the plan of exterminating patents, by gradually increasing the charge?

I think that that would have the effect of exterminating patents; when a person came to pay the second sum of money, he would be unwilling to do so, if the invention was found to be useless.

630. Would you approve of the idea of having a continually increasing annual charge, so that patents should be terminated by the increasing cost of them?

Where a party had been working a patent invention for one or two years, if he found the results were bad, he would drop that patent, and possibly begin another; he would see that he had been going upon a false route, and would commence his efforts afresh, and invent a new machine. I would refer to the instance of the pin-machine; pins are at present made by American machines in this country. The first solid-headed pin that was made in this country was made by an American machine. Five patents have been sold for pin-machines in this country which have been invented in America. In my works in the United States, there were two men who hired part of the establishment, and had a room fitted up for them to make this pin-machine; it is called the Pokipsey pin-machine. They afterwards carried on their manufacture up the Hudson, at a place called Pokipsey; those were two journeymen machinists whom I knew well; they produced the first machine for making a solid-headed pin. We know the vast sums of money which have been spent in this country for producing pins.

631. That invention has been brought over to this country, and a patent taken out for it here?

There have been five patents taken out for American pin-machines in this country.

632. Could not the improvements have been introduced into this country without a patent being taken out?

No; the general principle of the machine is kept a secret.

633. You say that it is the object of an American inventor to publish his specification as widely as possible?

Yes; but a very complicated machine you cannot make from the specification alone.

634. The patentee allows other persons to use that machine upon the payment of a royalty to him?

Yes; but you could not make the machine from the published specification, it is so complicated.

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635. In the case of most English manufacturers, are they not perfectly in possession of the general modes adopted by other manufacturers in other countries, and so as to foreign manufacturers?

It is generally the case, that whenever an improvement takes place in the United States of America, it is patented here immediately. I think that at least one-fifth of the more valuable inventions which are patented in this country are American inventions.

636. As soon as any valuable improvement were known in America, would not it be brought here without the stimulus of a patent?

I think not, by the inventor himself.

637. Does not the inventor generally take out a patent in this country as soon as he establishes his invention abroad?

Yes; they know the patent law of this country well, and an inventor generally makes preparation, as soon as he finds his machine perfect, to take out a patent in England as soon as in America; for this reason, there are a number of persons who make it their business to steal patents. For example, there is a mill now exhibited at the Great Exhibition, under the name of Crosskill's mill, which is the invention of Mr. Bogardus, of the United States. This is an eccentric mill; it is based upon a very simple principle; the bottom disc of the mill is eccentric to the top one; it is a very ingenious machine. The party who brought out that patent sold it to Sharp, Brothers & Company, in Manchester. I think they paid 3,000*l.* for it; but having so much business to do in other matters, the locomotive business at that time coming in fast upon them, they neglected it: the patent has run out. Now Mr. Crosskill is beginning to introduce it. I know the inventor came to this country, hoping to reap some benefit from the invention, and he found that the invention had been pirated and stolen by the father of his own apprentice; and he would not have had a shilling to take him back to America again, but that he invented the penny post stamp, for which he received a large sum from Government. I am myself the inventor of an excavating machine for digging railways and canals. I had a contract at that time on the Welland Canal in Canada; I patented it in the United States, and sold the patent to a firm there; I prepared the drawings and specification, and deposited them in my private office in New York, in the hope that when I returned from my engineering tour, I should go home to England, see my friends, and patent this invention. In the interim, however, a young man entered my office, and, under a surreptitious representation, obtained these drawings from my private clerk. When I arrived, I found that he had gone to England. He came here, patented the invention, and sold it for a large sum of money. I followed him here; when I came, I found, through Mr. Duncan, the solicitor, of Lombard-street, who was his agent, that I could do nothing with him. He said, "I am very sorry to think I have such a man for a client." He threw up his business. After going to all the trouble of inventing it and getting the drawings ready, and then following this man to England, I was robbed of the invention, and of my time in following him here. It was one week prior to the passing of the international law between this country and America. I could have arrested him had that law been completed. The inference I wish to draw from that is this, that no encouragement should be given to "robbers" of patents; the patent should be given only to the inventor, or to his legal attorney.

638. In the instance you have mentioned, was not the loss of your invention partly owing to your own neglect in not taking steps to take out a patent in this country simultaneously with the patent in America?

It arose partly from my own neglect; but it is almost necessary that you should in many cases communicate your invention perhaps to a workman, and in those cases he may sit down and make a drawing, or write a letter or description; and send it off by post at once.

639. If the expense of obtaining a patent in this country had been as trifling as it is in America, do you think you should have taken steps to take out a patent here at once?

That would be the course usually taken; my delay in the case I have mentioned arose in consequence of my engagements in Canada.

640. You

640. You think no protection ought to be granted to a man who merely imports an invention from a foreign country? *P. R. Hodge, Esq.*

I think not; by so doing you are encouraging a parcel of people who have no character of their own, and who do not care what they do. The persons introducing foreign patents without proper authority are generally men of no reputation.

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641. What check could you devise to prevent such a practice; would you require the importer to show the consent of the inventor?

Yes.

642. Is it not the fact that an English subject is obliged to pay a much larger sum for obtaining a patent in America than he would be if he were an American citizen?

Yes; you pay the same sum that we charge an American citizen; but America would be perfectly willing, I have no doubt, to reciprocate with this country. If this Government were willing to throw the matter open, they would be willing to charge no more to an English subject than to one of their own citizens. In case you thought fit to grant a patent to a foreign inventor, and only to the inventor, it should be done in the way in which they act with us. If we invent a thing in this country, we may publish it, but it is open to be patented in the United States, by the inventor or his agent, for one year from the time of the specification. We are perfectly satisfied that no one can use it in the United States, and no one can take the patent from us; we have, therefore, one year to look about us, and, in some instances, to obtain money. If we make a journey to the United States, or send an agent there, we are compelled to send some of the products of the invention, and get money for the patent. They give a privilege for one year from the time of the specification being published in this country before it becomes public property.

643. You think that that would be a safe and wise principle to adopt in this country with regard to foreign patents?

Yes; I think we benefit very much from the introduction of foreign inventions.

644. Allowing the interval of one year would prevent any such fraud as you have described?

Yes; the legal inventor or his legal attorney should be entitled to a monopoly the same as any other subject of this country for one year; but after that, it should become public property.

645. Would you assign any particular term for patents, or would you allow any discretion on that subject to the authorities vested with the power of deciding as to the novelty of the patent?

I think that 14 years is an ample term for a patent.

646. You would allow none to last longer than that?

None, unless upon its being shown that the inventor had been unable to derive sufficient from the invention.

647. Would you give to the Commissioners the power of shortening the duration of a patent where they thought the importance of the invention did not warrant its being granted for 14 years?

No, I think not.

648. Would you have exactly the same amount of money paid for all patents, a portion of that money being paid by future instalments?

I think that the cost of patents should be alike in all cases.

649. Even whatever might be the degrees of their importance?

Yes.

650. Would you renew the patent in all cases for the same term?

No.

651. Would you make the amount of the payment to depend upon the length of the term for which it was renewed?

I should wish the payment to be made in two instalments.

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652. Those two instalments would apply to the original patent; should not you propose a separate payment if the patent were renewed?
 Yes.

653. Should not the subsequent payment depend upon the length of time for which the renewal was granted?
 Decidedly.

654. Would you leave the duration of that period in the discretion of the Commissioners?
 I think it should be defined by the Act.

655. You would only propose that the payment should be made by instalments in the event of the cost of a patent being retained as it is?
 Yes.

656. I understand you to prefer a single payment at the low cost which prevails in America to the larger cost in England paid by instalments?
 Yes, I should prefer a low cost, certainly, with one payment.

657. Do not you think that there would be this additional advantage in making that break in the mode of payment, that, if the invention were found not to be successful, it would remove the patent out of the way of future inventors?

Decidedly; that is the advantage of it. If the patentee fails to make the second payment, the patent ceases from that time.

658. Therefore, it would be no longer an obstruction to improvement?
 No.

659. If that great advantage attends the system of payment by instalments, is not it sufficient, in your mind, to make the adoption of that system desirable, even though the total cost of the patent should be reduced to the American level?

Taking that view of it, it would be desirable; it would be a check to the existence of useless patents beyond a certain period. Very often a party takes out a patent which is useless to him; but, having the monopoly for a time, he might prevent others making any improvement.

The Witness is directed to withdraw.

R. H. Wyatt, Esq.

RICHARD HENRY WYATT, Esquire, is called in, and examined
 as follows:

660. WHAT is your profession?
 I am a solicitor.

661. Have you paid much attention to the subject of the patent laws?
 I am the honorary secretary of a society which is very much interested in the amendment of the patent law; perhaps I may be permitted to state to your Lordships, that a number of societies having been formed, several gentlemen who were members of those various societies, and agreed upon the subject, formed themselves into a united association, called the United Inventors' Association, and that is the society to which I am honorary secretary. In that capacity I have had an opportunity of gleaning from inventors and manufacturers resident in various large towns their opinions on the subject, and I think those opinions are nearly all embodied in the recommendations which are set out in a paper which is already before the Committee.

662. Some of those recommendations are embodied in the two Bills now before this Committee?
 They are.

663. Have you read these two Bills?
 I have.

664. Will

664. Will you state in what respects you think any clauses in them are objectionable?

H. Wyatt, Esq.
12th May 1851.

I should give my own opinion with considerable diffidence upon that subject, inasmuch as my experience is not very great; but I can express to your Lordships the feeling of some of the gentlemen who constitute the United Inventors' Association. The general expression of opinion goes to this extent, that out of the two Bills, one good measure could be made with some few alterations and additions; one thing is not provided for, which Mr. Westhead, the chairman of the Association, thinks very desirable, he having been a great sufferer from the present defective system. He was the patentee of an improvement in cloth, but by the omission of the patent agent to register the patent, he was obliged to apply for a special Act; he thinks that if the Commissioners proposed by either of the Bills were appointed, they might be safely intrusted with the power in a case of the kind I have mentioned; or where by any mistake the patent has been invalidated by a clerical error, or any omission of the patent agent, to grant relief to the patentee, or extend the time for him to correct that error, without the expense of a special Act of Parliament. Some suggestions have been sent to me by the Manchester committee, who have been very active upon this subject. They say, first, the payment for the patent should not exceed 10%. Secondly, the law officers ought to have one or two scientific practical men to assist them in examining specifications; they think there should be at least four scientific men to assist the Commissioners; they also think that a publication in foreign countries ought not to invalidate a patent for this country; that has reference to the 12th section of the Bill before your Lordships; the impression is, that it involves the necessity of a patentee inquiring, before taking out a patent, whether any such patent has been previously taken out in a foreign country; should that be so, it would be impossible for him to learn whether there is anything of the sort in existence in foreign countries; and it would prove a great hardship upon a patentee who might invent anything so far resembling a foreign invention as to be thought the same thing if he should go to the expense of taking out a patent here, and after all find out that there is something of the same kind in a foreign country.

665. Is it the opinion of the Manchester committee that protection should be given to a person for an invention which is not really new?

Provided it is new in this country, whether it is imported or an original idea of his own.

666. Do you imagine that, in the event of a person in this country obtaining a knowledge of an invention which has been patented, for example, in America, before the American inventor had time to patent it here, he should be allowed to treat that as a new invention of his own?

The difficulty appears to me to be in drawing the line of distinction; I think it is just possible that an American might conceive the same idea as an Englishman about the same time; and if the Englishman has taken out his patent in perfect ignorance of the existence of any similar patent in America, it would be a great hardship upon him to have it set aside in consequence of its having also been invented in America.

667. The object of the Manchester committee does not extend to giving protection to a person merely for having imported a foreign invention; their only desire is to remove the difficulty from the British inventor, who is not aware of his invention having been discovered by somebody else in some other part of the world?

That is so.

668. The parties you represent are the class of inventors, are not they?

Yes.

669. Their views of the patent laws are based upon the principle that the object is to do justice to the inventors?

Yes.

R. H. Wyatt, Esq.
 12th May 1851.

670. And not upon the principle that the object of the patent laws is to benefit the public by increasing the introduction or use of inventions?

The desire appears to be to protect both the patentee and the public as far as possible.

671. Would you give the advantage of protection to the person who merely imports a discovery made abroad, and attempts to take out a patent for it here?

I think that the feeling generally is in favour of protection being given to such a person, because otherwise the invention may be lost to the country; they think it desirable to encourage capitalists to take out a patent for England, in order that the manufacturers may have the benefit of the invention.

672. Do not you think that a great difference is made in this respect by the fact, that whereas formerly communications between countries were infrequent and difficult, now they are constant and easy?

I apprehend not; I believe the usual practice to be for foreigners to take out a patent in England about the same time as they take out a patent in their own country. In a manufacturing country like this, it often pays them much better to patent an invention here in the first instance; there are instances of foreign inventors inducing large English capitalists to purchase their inventions.

673. Do not you conceive that it is the object of the patent laws to encourage and promote the doing of that which without patent privileges would not be done?

Yes.

674. Do not you think that useful inventions published abroad would be imported into this country without the aid of patent protection to encourage parties to bring them here?

I am scarcely competent to answer that question; many capitalists, I believe, invest their money in important patents, in consequence of the present protection here.

675. Are not inventions which are patented abroad frequently, if not generally, patented at the same time in this country?

I believe that is so, generally speaking.

676. Does not that entirely meet the difficulty which may arise out of the supposed obstructions to parties obtaining sufficient capital for the application of such patents in this country?

It would in a measure, I have no doubt.

677. Will you state any other improvement which you think can be made in either of the Bills before the Committee?

It is the opinion of those whom I represent, that the fees of the Attorney and Solicitor-general ought to be stated in the Bill. I think that it is very generally felt to be desirable, merely to refer the application to the Attorney-general, and not to make that the office for inquiring into the sufficiency of the outline specification. I can speak from my own experience as to the great inconvenience which attends such a practice. In the case of a patent I am now applying for, the application was referred to the Attorney-general in the usual way; there was a caveat entered, and I received notice that there was an opposition; I went to the Attorney-general's office to get a hearing, and having waited there two hours (the only clerk to attend to all matters connected with patents not being in the way), with ten or a dozen persons waiting there at the same time, I was told that I should be informed when I could have an appointment. When I took my outline specification, I was told that it was to be left in the office unsealed. There is but one office for the patent business; I objected to leave it in the first instance, but the clerk said, you must do so, or it will be impossible for me to tell whether there is any caveat entered against your patent: I complied; it was left in an envelope unsealed, and it was placed in a pigeon-hole with others. There was nothing to prevent the boys and clerks of the patentee taking out those specifications and reading them, and taking notes of them. Your Lordships
 are

are fully aware of the present system of persons gleaning information from various quarters, and then entering a caveat for the purpose of driving the patentees to compensate them for withdrawing their opposition. That is a grievance which I desire to impress upon your Lordships. A very general impression is entertained that there should be but one office for patents; that the application in the first instance should be to the office of the Commissioners to be appointed under the proposed Act. It is suggested in these recommendations, that there should be scientific examiners, who should inquire into the sufficiency of the outline specification. It is well known that all the Attorney-general can do is to take the outline specification of the promoter, and also of the opponent, and compare them; and if they appear different, so to report. In my own case, after a fortnight's delay, I was told that they did not interfere at all, and that I might go on with my patent. I have also had some experience of an Act which the Legislature recently passed, the Designs Extension Act, for the protection of inventors. That Act works most admirably: I send my outline statement of the invention I wish to exhibit to the Attorney-general, who refers it to the Commissioners, and I get my certificate the next day or the day after; whereas in the case of the patent I have referred to, I have been pressing it forward as speedily as possible; but I have been upwards of a month without having got out of the Home Office; I am there now for the third time. There is but one opinion as to the importance and desirability of having one office for these purposes.

R. H. Wyatt, Esq.

12th May 1851.

678. Would not a provisional registration remedy that evil?

I see by one of the Bills before Parliament, there is a provision for that purpose, which I think is very desirable.

679. Would that provision remedy the defect you have mentioned?

No; it would not remove the annoyance of having so many offices to go through, and the delay we are subjected to in consequence.

680. With respect to your exposure to unfair opposition from the discovery of the particulars of your invention, would not such a provision remedy that evil?

It would, to a certain extent, protect me, and I might possibly be maturing my specification by experiments, but it would not relieve me of the great expense of attending at the various offices, nor from the delay and annoyance which arises from having to do so.

681. You imagine that the opponent would still be able to obtain the knowledge which he ought not to possess?

Having so many offices to go through, you have so many more risks to run. With respect to the Home Office, I should say, that that is one of the best offices which I have had anything to do with. They are more careful there; but in the hurry of business a specification might be thrown down; a clever mechanic might cast his eye through it, and obtain sufficient knowledge from it to enable him to oppose me at some subsequent stage. I would suggest, that there should be some officer to receive the applications, who should be a sworn officer, so as to secure the patentee.

682. All the facts you are mentioning are merely instances of neglect, which ought not to take place in the offices themselves?

In a great measure they are.

683. You think they are incident to the fact of having so many stages through which the patent must pass?

Yes; and to the multiplicity of business which the Attorney-general has to attend to. In the case of the opposition to my patent, I waited two hours for the Attorney-general; he was very much occupied in other important matters, and it was impossible that he could be there. Upon that occasion there were, I should think, at least 20 persons waiting to see the Attorney-general on the subject of opposed patents.

684. Is there any other point to which you wish to refer?

I may, perhaps, state to your Lordships, that the several recommendations to
(77. 4.) O which

R. H. Wyatt, Esq. which I have alluded were very carefully considered by the several parties interested, particularly by the Manchester committee, who waited upon the late Attorney-general. He approved, in substance, of these several suggestions; and I think I may venture to say, that nearly all, if not the whole, of their ideas upon the amendment of the law are embodied in these several recommendations.

12th May 1851.

685. They say the cost of a patent ought not to exceed 10 *l.* What reason do the parties for whom you appear give for fixing it at that amount?

They think that is sufficient for a patentee to pay; and that if an invention be worth anything, there will be no difficulty in a poor man getting 10 *l.* to enable him to take the first step.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Thursday next,
Twelve o'clock.

Die Jovis, 15^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

FREDERICK WILLIAM CAMPIN, Esquire, is called in, and examined
as follows :

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

F.W. Campin, Esq.

15th May 1851.

686. YOU are a patent agent ?

I am.

687. You were examined before the Select Committee of the House of Lords on the Designs Act Extension Bill of this year ?

I was ; my evidence is not reported in the Minutes, as I was not sworn, from some mistake.

688. Have you had an opportunity of reading the two Bills ?

I have.

689. Were you examined before the Privy Seal Commission ?

I was ; my evidence appears the first after the evidence of the official witnesses. I am not prepared to affirm all the answers which I then gave, for on some of the points I have changed my opinion since ; with regard to the advocacy of the French system of annual payments, I do not view that in so favourable a light as I did at that time.

690. Are you against all periodical payments ?

I am ; I think they are liable to produce very great inconvenience to inventors, and at the same time I think a system may be devised, which will have all the effects of destroying injurious monopolies without resorting to that system.

691. What injurious effect do you think such periodical payments would have upon inventors ?

In this way, that many inventions, though they have not been at all successful up to the third year, are still very ingenious and very good inventions, and consequently the payment might come upon the inventor, and very likely would at the time when he had been expending money without reaping any profit, and the capitalists and others engaged in the concern would be very likely to throw the matter over altogether rather than pay the tax.

692. If a certain sum of money is to be paid for a patent, would you not prefer that that should be spread over periodical payments, instead of the inventor being called upon to pay the whole sum at first ?

No, I think not ; the process I think should be this, that the party should get a right to the invention, and you should allow a certain time before you required the payment, and then the payment should be made once for all ; I think that the intermediate time would act as a *locus penitentiae*, that all inventions which had any utility in them at all would become patents, and that those which were not so would fall to the ground.

693. What length of time would you give ?

I think that about one year, renewable to the extent of three years, would be a desirable term.

694. That is to say, three years' protection ?

Yes.

(77.5.)

O 2

695. Without

F.W. Campin, Esq.

15th May 1851.

695. Without a patent?

No; not without a patent, but upon the presentation of his petition, the inventor should not be compelled to complete the patent till the expiration of that time.

696. That is, three years' protection without a patent?

No, you can hardly say that, because the right would date from the date of the petition.

697. Not if he does not take out the patent?

No; as regards the payment for the patent itself, I am disposed to agree to the terms mentioned in the Report of the Privy Seal and Signet Commission; I think it is a very proper system that a man who only wishes to have a patent for England should not pay so much for it as for a patent extending to the whole of the three kingdoms, because there are many inventions with regard to which it is of very little importance to the inventor that he should have a patent for Scotland and Ireland, and therefore it would be an injustice to saddle him with the same expense as you would saddle a party with for a patent which would be equally profitable in the three kingdoms. While I am upon this point, I may perhaps be allowed to mention, that it appears to me that there might be some practical difficulties in having one seal, instead of having three seals, for a patent. I am aware, from my connexion with the societies for the improvement of the patent laws, that the general feeling of the public is, that there should be only one patent; but I can see this practical difficulty if it is done under one seal. Supposing a case of infringement to be brought before the Court of Session in Scotland, we should have a decision that would affect the validity of the patent as regards the whole of the three kingdoms given by a Court in which we should have, comparatively, no confidence upon a question of English law; for the patent law is, in fact, English law.

698. Why should you not have the same confidence in the judgment of a Scotch Court as a Scotch patentee has in the judgment of an English Court, in both cases there being an appeal to the House of Lords?

Though a Scotch patentee has to appeal to an English Court, he appeals upon the English law, and therefore he may have every confidence in the opinions of English Judges upon English law; but in the other case we appeal to the Scotch Judges upon English law; their judgment is binding only to the extent of their own jurisdiction; viz., as far as Scotland is concerned; and therefore it is not of any consequence, because the Judges are acting within their own jurisdiction, and their judgment would have operation within their own jurisdiction only; but though by law it might be so restricted under one patent, yet the expression of the opinion of the Court would be sufficient to unsettle the patent in the minds of many manufacturers in England, and induce them to infringe the patent.

699. Does not that apply to all cases which are triable according to circumstances in the one country or the other, where personal property is concerned, for instance?

No, I think there is a distinction between the two cases; it is well known on all other matters of property what are the laws of the particular part of the United Kingdom in which the litigation is to take place; but the Courts in Scotland have no patent law of their own; they take the English patent law, and administer it as well as they can.

700. They may not have a separate patent law, but they have a patent law which they administer?

They have to refer to the decisions of the English Judges in all cases.

701. Was there no original patent law in Scotland?

No; I think there must have been very few patents for inventions in Scotland previous to the Union.

702. Have there been Acts passed since the Union introducing the patent law into Scotland?

None whatever; there is one law of the time of Charles the First or Charles the Second which refers to some matter which is not of any importance, but it does not apply to the subject-matter of the patent law.

703. How

703. How are the Scotch Judges authorized to apply the English patent law if that law has not been applied specially to Scotland? *F. W. Campin, Esq.*

In this way: according to their own common law jurisdiction they have a right to make the law from precedents, and having no Scotch precedents, they take the English decisions to guide them. 15th May 1851.

704. Do you mean to say that the Judges in Scotland are authorized to impose restrictions upon the people in Scotland upon the precedents of English law?

It is the fact that they use, and are guided by, the English decisions in patent cases.

705. They may be guided by the English decisions upon certain statutes applied to Scotland; but the question is, whether those statutes were made specially to apply to Scotland, or whether, as being Acts of the United Kingdom, it has been held that, by construction, they apply to Scotland?

Perhaps the Statute of Monopolies, upon which all the law of patents may be said to be based, may apply to Scotland. The only question is, whether the Act of Union had not this retrospective effect, that it introduced that law into Scotland.

706. The Act of Union most carefully avoided the introduction of the English law into Scotland?

However that may be, I know that it is a fact, the Scotch Judges are invariably guided by English decisions in cases of patents.

707. In the evidence which you gave in 1848, you stated that you saw no disadvantage in the numerous stages through which the patent was passed?

Provided the patent dates from the day of presenting the petition, I see no disadvantage.

708. You see some advantage in the delay which occurs in passing through those stages?

I do; inasmuch as it enables parties to make opposition, and it prevents fraudulent grants being made.

709. Would it not be possible to give that opportunity without going through all those stages?

That is a matter for the consideration of the Government, whether one plan of operations is more convenient than another; it is of very little consequence to inventors generally. I do not suppose that, unless patents were made very simple indeed, there would be a great many more persons induced to take out patents in person; therefore, the process is of very little consequence, provided the parties have their rights effectually secured to them.

710. And the patent agents do not mind the trouble?

No. That will bring me to the consideration of the Bills now before the Committee. I have looked over those Bills, and I am disposed to think that the second Bill introduced by Earl Granville is the better of the two, considering the present state of the law and practice. With regard to the formation of the Commission, it appears to me that it might be desirable to add the President and the Vice-President of the Board of Trade. As patents are decidedly for the encouragement of trade and manufacture, it appears to me that it would be proper to introduce the officers of that department; although, I may add, that there appears not to be any great necessity for that Commission at all. The only jurisdiction which appears to be intrusted to them is to make rules which might be made by the Judicial Committee of the Privy Council, after consulting the law officers of the Crown. It appears to me that the most advantageous plan of passing patents would be to have an officer appointed at the Home Office, to whom all these applications should be submitted by the Secretary of State; he should record his opinion on the document for the guidance of the Attorney-general; and, moreover, should attend the Attorney-general in any special case as a sort of adviser on behalf of Government. But I would not leave to that officer the decision upon the patent, because I think we can place more confidence in the Attorney or Solicitor-general than in any other officer that might be appointed, for the reason, that the public are generally disposed to think that

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we have, in the high law officers of the Crown, first-rate men, whereas they are not always disposed to think that all appointments are of the same character. But if it be thought that the Commission should be retained, I think then the Commission should have further powers, and should carry out some other objects which are not named in this Bill, which I will take the liberty to mention. In that case, it would probably be better, when a petition is referred to the office of the Secretary of State, for him to submit that petition to the Commissioners, or to an officer appointed by the Commissioners, in the same manner that I spoke of just now with reference to an officer attached to the Home Office; and upon that, the Secretary of State should issue his reference to the Attorney-general to proceed as is here named. With regard to Clause 5, I would observe, that I think it should be made a general rule that the patent should date from the day of presenting the petition, and that the Attorney-general should only recommend that the patent should be dated from some other day if he saw fit. In the clause as it at present stands, it is left optional with the Attorney-general to recommend in his report that the patent should bear date at the time of presenting the petition. I think, if there are any special circumstances to warrant the patent being dated at a later date, he should recommend that; but otherwise, it should bear date on the day of presenting the petition. And the same applies to the Lord Chancellor.

Clause 6, as to the report and the statement, appears to me to be unobjectionable; it is perhaps a matter of detail, but it seems to me that the statement should go back to the Commissioners' Office, and be filed, and kept by them, and not kept at the Home Office. Clause 7 states that letters patent heretofore commenced are to be sued out within three months after the passing of this Act. I think there is no particular objection to that part of the clause; but then it says that future patents are also to be sued out within three months; I think that should be extended to six months, or even longer than that, if it is thought that the preliminary protection which I spoke of at first should be introduced; you might lengthen the period, but at all events it should not be less than six months; it would, however, be hardly worth while to make such a provision, because the matter would be controlled by the proviso requiring the specification to be enrolled within six months after the date of the patent; that would be from the date of the petition. To clause 8 I have no objection to offer. With regard to what I have said about having three seals, instead of one, I should not like it to be understood that my decided opinion was against the patent being under one seal, instead of under three seals; I merely threw it out for consideration.

711. Do you suggest three offices to be kept distinct?

No; I would propose that all the proceedings up to the warrant should go through the Commissioners, and the Home Office, and that the warrant should authorize the signing of three distinct instruments, because I think that, even if you have only one seal, it will be necessary for three specifications to be enrolled, for it would be clearly wrong to deprive the Scotch and Irish people of the facility which they now have of resorting to Edinburgh or Dublin, to see a copy of the specification, and to compel them to come to London to see it.

712. Would it not be hard upon the county of Northumberland?

The county of Northumberland would not be placed in a different position from what it is at present; it would not be deprived of a right which it already enjoys. In Lord Brougham's Bill it is proposed that the county of Northumberland, as well as other counties, should enjoy that privilege; but I think that would be too onerous, either upon the Government or upon the patentee, upon whichever it was thrown. With respect to the 10th clause, what I have stated as regards periodical payments, of course applies to that; I see that there might be very great objections to periodical payments; and I consider that the object which is sought to be effected by those periodical payments would be effected by the preliminary protection of which I have spoken being given previously to the full patent being issued; I think that that preliminary protection will act as a sufficient sieve to screen off the bad or inexpedient inventions, and to bring forth the good ones into patents, or perhaps two years would effect that object; I am not by any means certain what the time should be, but I think six months would be scarcely long enough; six months might do, if there were the power of prolonging it to two years, or some term of that kind.

713. Does

713. Does it not occur to you, that after an interval of four or five years, although the efficacy of the invention was perfectly established and tested in two or three years, yet the indisposition of the public to avail itself of the invention from the discovery of some other process might at that time be ascertained which could not be so readily ascertained at the end of six or seven months, and the man might find that a very excellent invention was, nevertheless, not a profitable invention, and he might be glad to be relieved from further payments on that account?

F. W. Campin, Esq.

15th May 1851.

The difficulty is this : that it is quite impossible to fix any particular period at which the invention shall become profitable, and up to that moment every thing may look black and overcast, and after that time the whole aspect of things may change.

Mr. Webster. I have been this very morning before the Privy Council upon a case of extension, where the party lost 2,000*l.* or 3,000 *l.* every year for some years, and since that time he has gained as much every year.

Mr. Campin. And it is a most curious thing, that inventors and capitalists generally quarrel, and capitalists who may have spent very large sums of money, sometimes, for a very few pounds throw the whole thing up ; and therefore, if the poor inventor was to be left to pay 20 *l.* or 30 *l.* at the end of the third year, he would be very likely to lose the patent altogether. In my evidence before the Privy Seal and Signet Commission, I advocated the French system of annual payments, but I have changed my opinion since, in consequence of this circumstance : one poor inventor whom I knew got other persons to form a company, and they advanced money to him to take out his patent. When I was connected with the Society for promoting the Amendment of the Patent Laws, we were considering this subject ; and he stated to me, “ This invention hitherto has not produced any thing whatever ”—(but it was thought very well of, otherwise the Polytechnic Institution would not have approved of it, and many engineers were disposed to look upon it very favourably)—“ but if I had had to get some one to pay up a sum of money, unless it had been a very small sum, I should very likely have lost my patent altogether, because those concerned with me began to feel qualmish at that particular time, and they probably would not have produced the money.”

714. That may be so in that particular case ; but surely in a great number of cases it must be more difficult for the inventor to find a capitalist who will advance a large sum in the first instance for an invention of which he knows nothing, than to find a capitalist willing, having embarked a certain sum, to advance a further sum after the invention appears likely to be useful ?

No, it is not ; if you go to seek for a capitalist before the patent is obtained, the great difficulty you are met with now is, that the inventor will not demonstrate his invention, because he has no patent ; but if you take away that difficulty, he can demonstrate his invention so that the capitalist may see the probability of success ; and upon that the capitalist will be more inclined to take the thing up than he will be after the patent has been granted and tried to a certain extent. The only thing then will be, that the capitalist may look at the “ *£. s. d.* ” to see whether you can show a balance of profit in your hand ; if you cannot, he says, “ The thing has been before the public so many years, and has not produced any profit, and I shall have nothing to do with it ; I will not go into any further outlay on account of this invention.”

715. In the case you spoke of, was it the inventor or the capitalist in whose name the patent was taken out ?

The inventor. The patent is obliged to be in the name of the inventor, otherwise they could not make the declaration that is required to be made.

716. Then the inventor would have the choice of any other capitalist ?

Yes ; but having had one capitalist, and lost him, it is a great prejudice to the inventor. I am not advocating that you should charge the sum total of all those money payments for the patent contained in the Schedule of the Bill ; it is very difficult to arrive at any conclusion as to what shall be the actual sum ; and the best way of cutting the matter short would be to take the recommendation of the Privy Seal and Signet Commission ; the sum named there is 60 *l.* ; I think that is not too much.

F. W. Campin, Esq. 717. Is it not more than 60 l. ?

15th May 1851.

It is 40 l. if the patent is for England ; 50 l. if it is for England and Scotland ; and 60 l. if it is for the three countries. It does not specify whether it is meant to include all the fees of the Attorney-general or not ; I think the maximum is 60 l. At all events, if you should not feel inclined to give weight to my suggestion on that head, as to doing away with periodical payments, I would still urge that you should defer the payment of the 40 l. to the fifth year instead of the third, making the payments on the fifth and ninth years ; then you would give a better chance to the inventor. I think three years would be scarcely in any case sufficient for him, commercially, to test the invention with success.

718. In giving this opinion, you are considering the interest of the inventor, and not the interest of the public, who ought not to suffer from useless inventions being patented ?

My opinion is, that you would clear all those away by the system of preliminary protection. By a monetary test you cannot clear away all those ; even if you were to charge 1,000 l., or any large sum of money, some parties would find the means of patenting useless or frivolous inventions ; so that it is only a rough approximation that you get, as far as the public is concerned, by the monetary test ; but the object would be obtained by the system of preliminary protection.

719. Would you give power to this Commission, or to whatever authority was established, to test more than the mere novelty of the invention ?

No, I would not.

720. Is there any mischief to the public in patenting frivolous inventions, if the patentee chooses to go to the expense ?

They are instruments upon which you may hang lawsuits ; that is the only use of them, and that is decidedly detrimental to the public, and not only that, but it stops the progress of improvement. It is a very common thing for the suggestion of one person to lead to the invention of another, but that other finds that he can do nothing without obtaining the license of the previous inventor ; and the previous inventor, believing that he ought to have the benefit of the invention, is not disposed to surrender the license.

721. This provision arises out of the necessity which exists for making useless patents of that sort cease after a certain time. Such a regulation as that would lead to the abandonment of useless patents, after a short interval, would it not ?

Yes ; but I propose that the preliminary system of protection should be worked with a view to effect the same object, and with more advantage to the inventors.

722. How would the preliminary system of protection attain that object ?

I mean that the date of the presentation of the petition shall be the date of the patent ; the only question which then remains is, how long a time you shall give to pay up the money and to deposit the full specification.

723. How does that get rid of this difficulty : we will suppose that a person has an invention proposed to him for purchase, which is not very useful in itself, but he feels that he shall preclude some other party from making use of the invention if he can only get it patented first ; it is a matter of insignificance to him whether the patent costs a few hundred pounds or not, but he goes to the expense of taking out the patent ?

I do not see any difficulty in that case ; the man who passes his patent through quickly will have his right from the date of his petition, as well as the other man who does not pass his patent through quickly. There might arise a difficulty in this way, that, supposing you were a person who desired to complete the patent itself, and to get it worked without having further trouble, you might be stopped, to some extent, by reason of the documents deposited by others not fully developing the invention, and therefore you could not depend upon them with so much certainty.

724. Is it not practically the case that one of the great inconveniences of the present system is, that a great many people petition for a patent now, having only

only a very vague notion of what they intend to carry out in the patent; but, during the time which they are allowed for drawing up the fuller specification, they pirate everything they can, and insert it in their patent?

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No; I think that is a vulgar notion of the thing; there are cases of that kind; but I think they are a very small per centage.

725. The object being to induce persons who now take out patents for either useless inventions, or inventions which, in fact, are of no use, but might be of use in the further progress of discovery, to abandon such inventions, how do you say that giving this preliminary protection would lead to that result?

In this way, that they will have time to consider whether their invention will be worth the payment of the sum of money which you require upon the completion of the patent.

726. You imagine, then, that many persons taking out those provisional protections will find, before the time required for them to take out the permanent letters patent, the inutility of their invention, will abandon it from self-interest?

Yes.

727. How do you meet the case put just now, of a person of the description mentioned, who did not mind much about laying out a certain sum of money, and who, notwithstanding that during the interval he saw no advantageous pecuniary result from that discovery, still persisted in taking out a patent, and thus got possession of a discovery that was of no use to him, but impeded the further progress of another mind not having the possession of that previous discovery?

The same objection will apply to periodical payments; you would get a nearer approximation in that case than I should by the plan I propose; but still you would not get a perfect panacea.

728. We are told that, for the most part, inventors sell their inventions to men of capital, who advance the money?

Inventors do not sell their inventions, but they join capitalists with them.

729. Supposing an invention to come practically into the hands of a capitalist, who wishes to take out a patent for it, but is uncertain whether it is likely to be successful or not, he takes out a provisional patent, and, before the time has expired, he finds that it is not likely to be successful, but he finds that in the interval another invention has fallen into other hands, which is likely to be profitable, and is likely to supersede his invention; take that case, which is not an inconceivable one: the capitalist, having taken out his provisional patent, finds it to his interest to continue the patent to completion, though it is not likely to be useful; how is there any security for his abandoning the preliminary patent?

I think that is an extreme case; there are very few capitalists that would be inclined to buy a lawsuit in that kind of way; and it might be open to question whether this patent, which the party got to hang the lawsuit upon, was not a gross infringement of the original patent, and the Court might call upon him to pay rent or dues to the original patentee, or the Court might consider it a substantial improvement, which should pass the invention out of that original patentee's hands altogether.

730. Patent rights you consider to be a restriction upon the public for the benefit of inventors?

I do not consider that the rights of patentees are any more a monopoly than any other kind of property.

731. Do not you admit that patent rights are practically a restriction upon the public in favour of inventors?

Just in the same way as all other property, nothing further.

732. Is not that restriction upon the public granted for the purpose of encouraging inventions which shall be ultimately useful to the public?

That is, I believe, the principle upon which the patent laws proceed.

733. That being the principle upon which the patent laws proceed, is it not reasonable that the Legislature should require that within some moderate period there should be some practical evidence of the growing utility of the invention in favour of which they grant such privileges?

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That may be right in theory; but the difficulty in practice is so insurmountable, that in attempting to cure one evil, the fear is that you may be creating another of greater magnitude; and I think that, under the circumstances, the Legislature would be acting wisely in abandoning any idea of that kind.

734. Then you think the principle of requiring some evidence of the utility of an invention within a moderate period of time, is sound in theory, but that it is absolutely impossible to carry it out in practice?

I do.

735. Do not you think that if an invention be really one of practical utility, some annually increasing tax upon the patent is calculated to amount to a test, either of the actual profits arising from the patent, or of the growing confidence of those who understand the patent, that it will ultimately produce profit?

I think that it would be a very good test as to the actual profits, but not as to the confidence in the invention, because the confidence must emanate from those parties who have nothing to do with supporting the patent; for instance, the public might highly approve of an invention, while the capitalist and those concerned in supporting the patent by the payments necessary to be made might not have that confidence.

736. Do you conceive it possible that the public would have confidence in the growing utility of a patent, and that the patentee or the party connected with the patent could, under such circumstances, be utterly devoid of confidence?

It depends upon whether it ever reaches his mind or not.

737. Are you really supposing a case in which a party connected with a patent, having invested his capital in producing the patent, is wholly without confidence in its utility, whilst the public who are not so connected with it have great confidence in its utility; is not that one of the most improbable suppositions that can possibly be put?

The effect of the growing confidence of the public upon the mind of the patentee would entirely depend upon the demonstration of that confidence, and the only demonstration the capitalist would look to would be applications for orders.

738. If the public have confidence in a patent, is not that, in other words, saying that it will lead to orders for it?

Yes; but till it does lead to that result, the prospects of the patent may have been so overclouded, as regards remuneration, that the parties concerned may not have seen the growing confidence on the part of the public.

739. Do you consider it desirable that patent rights, which we have already acknowledged to be a restriction upon the public, should continue in existence under the supposed circumstance of the utter want of any confidence in the utility of the patent on the part of the inventor or the capitalist, and in the absence of any disposition on the part of the public to make use of the invention?

I do, because in two or three years' time the opinion of the public may change altogether.

740. Do you think it right to clog the public with restrictions of that kind, upon the mere possibility of the opinion of the public changing, unaccompanied with any presumptive evidence of that?

I do, because I think that the general effect of liberality in rewarding inventors is to produce inventions, and that it is much more important for this country that six good inventions should be produced, than that twelve bad inventions should be swept away.

741. Is not the important consideration for the public, that inventions of practical utility should be produced, and that inventions which have the semblance and not the reality should be distinguished from those of real practical utility?

That must depend upon arrangements the carrying out of which must be attended with considerable difficulty.

742. But the question refers to the object to which legislation should be directed?

I think a monetary test will never effect that object, it only makes a rough approximation;

approximation ; and I think that the point to be considered is, in what way that rough test shall be applied, so as to be the least onerous to inventors and patentees.

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743. Is it the case that the possessor of a useless patent may cause very serious inconveniences, and impede the progress of one who is an inventor of something really useful in the same class of objects ?

I have so stated that such is the inconvenience to be apprehended.

744. Should you not contemplate the probability of a very great increase of mere speculative petitions for patents if there were no money payment connected with them ; do you not think that a man who had a vague idea floating in his mind might petition for a patent, in the hope that he might mature that vague idea, and that something might turn up, and that by the number of applications that would be made for patents, the amount of restriction upon the public would be very much increased if there were no payment connected with it ?

I am not contemplating that you should not make a payment sufficient to cover the expenses of the office to some extent, and to check persons presenting useless petitions ; I would have the payment, such as appears in this Bill, 2*l*. I think it would be desirable to attach to the Home Office, or to the office of the Commissioners, an officer who should examine all those petitions and statements, in the same way as Mr. Webster, and other gentlemen, suggested with regard to the provisional registrations of inventions for the Exhibition. I think that those examiners have, in several cases, thrown out many unsatisfactory petitions. I had one case myself, in which the examiners of the proposed registrations declared the deposit to be insufficient ; some of the objects set forth in the statement were frivolous and ridiculous, and the consequence was, that in the amended statement they were struck out. I think that if these petitions went through that sort of process, either at the Home Office or at the Commissioners' Office, you would not have such a vast number of frivolous and useless applications.

745. You do not think it necessary that the applicant for a patent should be called upon to pay in the first instance such a sum as to indicate his confidence in the value of his patent ?

No, I do not ; because he has not had an opportunity of acquiring that confidence.

746. You think that he should have the opportunity of acquiring that confidence, without giving to the public the assurance of his confidence in the invention ?

I do ; I may perhaps be allowed to state to the Committee the principle upon which, I apprehend, these cases proceed. The great thing in an invention, as will be acknowledged by almost all parties, is the conception of the principle upon which the invention is founded. In nine cases out of ten, if you conceive the principle of the invention, any intelligent workman may carry out the details for you ; therefore, the man who conceives the principle of the invention is the person entitled, generally speaking, to the patent. The law at the present moment proceeds upon that supposition, that the principle of the invention being conceived, you may employ workmen to assist you in carrying it out.

747. Are not almost all patents for modes of carrying out established principles ?

Yes ; but then they have principles in themselves ; I am not speaking of general principles of science or mechanism or chemistry, but I am speaking entirely of the outlines or principles of the invention ; for instance, in Watt's patent, the great principle was condensing steam in a separate vessel—that was the characteristic feature of the invention ; but the mechanism by which the principle is carried out is a matter of common ordinary, every-day mechanism or chemistry, or whatever it may refer to ; it is necessary, therefore, that the inventor, when he has thus far arrived at his invention, should be secured against any injurious result from any communication that he may make to the workman or the capitalist, or any other person, with a view of ascertaining whether it is desirable to carry his idea further or not.

748. You are speaking of the characteristic features of the invention as distinguished

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tinguished from the mechanical details by which it is worked ; could you illustrate your meaning by any practical case—take such a case as Mr. Nasmyth's steam-hammer ; how do you distinguish in that case between the characteristic principle of the invention and the mechanical details ?

I am not very well acquainted with Mr. Nasmyth's steam-hammer, but I should presume that the characteristic feature of that invention of Mr. Nasmyth is, that he applies steam to give an impulse to a piston or hammer, and thereby produces a blow upon whatever he requires to produce a blow by these means, instead of, as formerly, employing cam-wheels, which catch the shanks of a hammer, and thereby give a percussive blow. Mr. Nasmyth's steam-hammer, I believe, gives a steady and certain blow, like the gradual fall of a weight ; Mr. Nasmyth conceived that, by the use of steam, he should produce this gradual and steady blow, instead of the old percussive and intermitting action of the tilt-hammer ; but it is evident that there might be various ways of carrying that principle out by altering the mechanism : unless you have that characteristic feature of Mr. Nasmyth's invention, you have nothing to act upon ; but I have no doubt that there might be other mechanical equivalents used besides that which is used for the purpose of carrying that characteristic feature out.

749. What should you say was the characteristic feature in the case of Mr. Nasmyth's steam-hammer ?

I should say that the characteristic feature was regulating the descent of the hammer by the elastic force of the steam. My idea is, that all inventions, whether for mechanical combinations or not, have a distinctive feature in them ; and it is evident to every person of common sense, that that may in many cases be carried out either by a lever, or a wheel and pulley ; and if the characteristic features of inventions are not protected, you will have very few or no patents at all, because the inventors will have no confidence in the patent law.

750. You stated that, in your opinion, it would be very desirable that each patent should pass through the Home Office, or some other office, in order that an inquiry might be made into its merits ; how is that consistent with the other answer which you gave, that the inquiry should be only directed to the question of the novelty of the invention ?

I never intended that there should be any inquiry into the merits of an invention ; the only inquiry that I wished to be made is the same as under the provisional system of registration for the Exhibition ; viz., as to the apparent validity of the object set forth in the statement ; and that is all I should wish the examination to go to ; that would go to a certain extent into the question of merits.

751. In the former question you were asked whether you thought that the authority appointed to decide upon the question of the patent should apply itself to the question of the novelty, or the merits of the patent, and you said that, in your opinion, it should confine itself to the question of novelty ?

Then I misunderstood the question ; I was looking to their going into the question of the merits in the broad sense ; I think it very desirable that the merits should be gone into as far as the law at present allows, and no farther ; that is to say, the law at present takes cognizance, as regards merits of things, that are palpably and notoriously too frivolous to be brought at all within the scope of the patent laws ; that was the case in the instance that I had to deal with.

752. Will you proceed with your remarks upon the Bill ?

I might mention, with regard to the annual payments, that I think the annual payments would be very much smaller in amount than those periodical payments would be, and would be very much less objected to by inventors ; but I doubt whether the annual payments would be of any utility to the public in preventing useless inventions being kept patented, because they would be so small as not to influence that.

753. And you think that periodical payments would be a great inducement to abandon useless patents ?

Yes ; I think as far as it went it would have that effect ; but I am afraid that it might produce the other evil of strangling a great many useful inventions in the birth, or at least after they had arrived to a certain degree of maturity.

754. It

754. It would not strangle them in the birth, it would only deprive the inventor of the full reward of his invention? *F.W. Campin, Esq.*

But I will venture to say, that there are very few inventions which have gained for the inventor any profit by the third year. 15th May 1851.

755. You think that those periodical payments would act advantageously to the public, in causing many useless patents to be abandoned; but you think it would also act disadvantageously to the public in causing many useful inventions to be lost?

Yes.

756. But the invention itself would not be lost; the only result would be, that the inventor would lose his invention?

Exactly; the public would lose this advantage, that the inventor is always the best man to carry out the invention, and therefore it is to the advantage of the public that the inventor should be induced to carry out the invention.

757. Would not the inventor, with all the advantages that his invention gave him, even without the patent, be more likely than any other of the public to carry out his invention, if it was one that the public were likely to make use of?

He might be a man who was not likely to do anything commercially in regard to the invention, and consequently other parties, seeing the value of the invention, and having an opportunity of carrying it out, might reap all the advantages of it. There are these disadvantages, I think, attending the periodical payments; but if that were persisted in, I think you must give a greater latitude by delaying the payment to the fifth and ninth years. My idea is, that if a patent law fails in liberality, it fails in inducing people to invent and to carry out their inventions. I now come to the 11th clause of the second Bill, in which it is said letters patent may be issued under the Great Seal of Scotland, and under the Great Seal of Ireland, in like manner in all respects as such letters patent are now. I presume it would be considered desirable that those letters patent issued under the Great Seal should be reduced in expense, because this will be the position of things when the Bill comes into force; there will be a number of persons who will have taken out English patents; they will be obliged to pay 70 *l.* for Scotland, and about 120 *l.* for Ireland. It is usual for a patentee to obtain his English patent, and complete that, and then to obtain his Scotch patent and his Irish patent; and if they were to pay the heavy fees they now pay, it would be an injustice upon them.

758. You wish to have some provision introduced to meet that case?

Yes; I think this clause ought to be altered in this respect; if you allow it to stand as it does, without requiring the patents for Scotland and Ireland to pass through the Commissioners or the Home Office, unless there is some arrangement made for bringing all the patents to one office, we shall have the practical inconvenience of having to find the patents among the different sets of offices, as we have now. It is of great importance that there should be one register of all the patents kept in one office, that inventors may have a facility in ascertaining whether a thing has been invented before or not.

759. You think that there would be no difficulty in giving satisfactory indices to the public for that purpose?

No; it should be what the French would call a *catalogue raisonné*.

760. To what extent should that go; would you have all the specifications set forth?

No, only the claims of the specifications. The detail which I propose would be, that these separate patents for Scotland and Ireland should pass through certain forms up to the warrant, and that the warrant should authorize the patent in Scotland and in Ireland. If it were enacted that the patent should go through the ordinary routine here pointed out, and then the warrant be directed to the officers in Edinburgh and Dublin for the extension of the patent to those countries, thus the evil would be remedied. I should suggest that you should do away with all the previous expense, as regards those countries, up to the warrant. The next clause is the 12th, which I have a very great objection to; that clause says, that the use of the invention in any foreign country is to invalidate the letters patent: now, I think it is quite difficult enough for a man to ascertain whether an invention is novel or not in the United Kingdom; but if he is to make sure that it is

F.W. Campin, Esq. an original invention as regards the whole world, there is not one patentee in twenty that would take out his patent with any confidence.
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761. The object of that clause was to prevent a party coming from America and taking out a patent here for an invention which he had imported into England, of which he was not the inventor?

I see the object of the clause; if you could give a greater protection to inventors over other parties, I think it might be desirable; but I think it is of no consequence to the public how the invention is got, so long as it is brought to them, and such is the opinion of a great many countries. In Belgium they allow parties expressly to state that that which they patent is imported; and in Holland also it is the same. In France the law does not allow any parties but the inventors to take out patents; and the same thing exists in the United States of America; but in most countries the law is, that the first importer of the invention shall have pretty much the same privileges as the inventor. Some countries give a shorter term to the importer of the invention than to the inventor; but they all recognize the principle that the great thing to be looked to is, that a new thing is brought for the future use of the public. I come next to the provisional system of protection; I cannot say that I agree with that, for this reason: I think a provisional protection is usually required in the case of those inventions which are not fully matured; but this supposes the case of an invention which is fully matured, because it says that there is to be a full specification; I think that will be of very little service to any man, and it will create this inconvenience: you will have two systems of preliminary protection at the same time; you will have a preliminary protection upon the presentation of the petition, and a separate preliminary protection upon the deposit of the full specification. The position of the inventor, under this system of provisional deposit, will be this: he must prepare his full specification, which is a document requiring great care and precision, a document which very few inventors would think it desirable to prepare themselves without professional assistance, and that document must be accompanied, in many cases, by a number of drawings; I have known the drawings in some cases to cost 50 *l.*: all these circumstances will swell the cost of this provisional protection from 2 *l.*, the amount of the fee, to 40 *l.* or 50 *l.* or 60 *l.*; and therefore I cannot myself see that it would materially benefit the inventor, at the same time that it might create confusion from their being another system of preliminary protection at work.

762. In what way would it create confusion?

I am not prepared at the present moment to go into that; but we know that the Design Act, acting concurrently with the patent law to a certain extent, produces very great confusion.

763. They are under two separate offices?

Yes; I have heard a number of objections made to a provisional protection of this kind being given, on the ground of its creating confusion.

764. But you are not able to explain what that confusion would be?

It would require some consideration of the details before I could state distinctly what it would be; but if you had one system of preliminary protection upon the presenting of the petition, there could be no occasion, I think, for having another system of preliminary protection, and the expense that must attend it would render it of very little service.

765. With reference to the expense, the chief part of that consists of drawings; would not that be saved in the further proceedings of taking out the patent, if the patent was taken out?

Undoubtedly; but the great point that we want to provide for is, to give protection to the inventor while he is testing his invention. A great number of inventors are poor men, and even this 2 *l.* it might be difficult for them to raise, and therefore if they are to be met, not only with the 2 *l.*, but with the expense of paying for the description, even if a man had the ability of drawing up the description himself, it would occupy a good deal of his time, which would be money out of his pocket; and the practical inconvenience of their preparing that description would be, that the parties would find afterwards that their patent was upset and invalid, and that it was a miserable failure. The great point is, to give protection at very little cost, so that the inventor may have a chance of carrying the patent through.

766. In

766. In what way would you propose to give that protection?

Upon the presentation of the petition I would give a right to the patent, and also, at that time, as is proposed by the Bill, I would have a statement deposited which should be full and sufficient as far as the nature of the invention is concerned; that is stated in the Bill.

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767. But without a specification, to which the parties should afterwards be bound in taking out the patent?

Yes; this would bind them to the features and boundaries of their invention; all they could do afterwards under that deposit would be to fill it up with such mechanical or chemical details as would be appropriate to that description. The description must be sufficient to warn any after-inventor off the ground which has been already taken; I do not think any after-inventor could complain, in consequence of this not being a full specification, that he had been induced to lose his money on a patent which was of no value to him.

768. If it were a full description, such as you have described, it would seem to be open to the objections you have stated to a full specification; you say it must be sufficient to warn off another man, and to show what the inventor is about?

Yes, but it does not entail so much expense upon the inventor; if a party came for professional assistance, on a deposit of that sort he would perhaps have a guinea or two to pay; whereas in the other case he might have to pay 40 or 50 guineas.

769. It is optional with any inventor to deposit under that clause; might it not be the case that inventions might be so simple that it would not require any professional assistance to draw up the specification, if the inventor were a poor man?

But poor men are the very men who require professional assistance. Many practical engineers of eminence could draw up a specification quite as well as I could; but poor men, without education, though they may have ideas upon the subject, have not the faculty of putting their ideas together so as to draw up a specification.

770. But the case supposed is a case where very little specification is required?

But some of those inventions which appear to be very simple have eventually turned out to be the most profitable patents in existence, and have required greater nicety than any others; they have been cases in which a counsel should have been consulted in addition to the patent agent, because it was so difficult to determine where the novelty began, and where it ended.

771. The greater the utility of a patent, the more chance there is of litigation upon the subject?

Yes. I have stated that I should wish a statement of this sort to be deposited in the first instance, but which should not be a full statement, and I wish that it should pass through a certain routine: I will take the analogy of the Act which has been recently passed, the Act for provisional protection of inventions at the great Exhibition: they passed before certain examiners. Immediately they got the descriptions, they looked through them; if they found anything which was not fit subject for a patent, or which was not sufficiently described, and there was nothing but a confusion of words, they would send notice, as they did, to the parties to amend their descriptions; the consequence was, that the descriptions were amended. The only chance of any of those descriptions not being correct is from the very hurried manner in which they were obliged to be made at the last moment, just before the Exhibition was opened; otherwise I have no doubt that they were perfectly correct.

772. Has much use been made of that Act?

Yes; there have been four hundred registrations under it.

773. As far as it has gone, has it been found to work satisfactorily?

It has. I do not propose that the fiat of the officer should be decisive, but I think that it should pass on to the Attorney or Solicitor-general, and that it should be the practice for this officer to attend upon the Attorney or Solicitor-general, so that there might be future explanations, and a satisfactory result arrived at. With regard to the 14th clause, which states that you continue the

F.W. Campin, Esq. operation of the Patent Amendment Acts at present in force, by which the Judicial Committee of the Privy Council has certain jurisdiction given to it, I would suggest, whether this proposed Commission would not be a better body to exercise that jurisdiction which is now in the hands of the Judicial Committee of the Privy Council, upon the subject of the extension and confirmation of patents, and so forth.

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774. That is not a matter touched upon in the Bill?

No; I think it would be desirable, in that case, to have an appeal to the Judicial Committee of the Privy Council; but as this Board would become conversant with inventions to a great extent in the course of its operation, it appears to me that it would be more desirable that they should have the jurisdiction than that the Judicial Committee of the Privy Council should have it. I must not be supposed to throw any reflection upon the mode in which the Judicial Committee of the Privy Council has exercised the jurisdiction, because I believe their decisions have been highly satisfactory; but I think if we can do away with the multiplicity of jurisdictions, we shall effect some good. Another thing that I would suggest is, whether it would not be a desirable thing for those Commissioners to nominate and appoint persons duly conversant with inventions and manufactures, and that those persons should be called upon by the Courts of Law in any cases where the validity of patents was disputed, to give evidence upon the subject; my object in suggesting this is, that, under the present law, the decisions on patents are not accompanied with such certainty as I think they ought to be. Scientific witnesses are now examined by the Court in patent cases; but they are brought up by the parties, and paid by them; consequently they are nothing more than scientific advocates, and they tend to confuse the juries by the conflicting evidence that is given by men of equal authority.

775. You would have the Court required to call in those persons as official witnesses?

Yes, or as assessors; that would be in analogy with the Admiralty Court, which calls in the elder brethren of the Trinity House. The clauses with regard to indices, I think, are highly proper, but you would find a practical difficulty in collecting all the specifications in one office, because they are put up in rolls, with deeds of transfer and other deeds of that sort; if you made a catalogue or index of them, and stated in the margin where those specifications were to be found, and provided that all those offices should be brought under one fee as regards inspection of the specifications, you would obtain an important practical result.

776. No such difficulty as you suggest would arise from the future enrolment of the specifications?

No. There is one thing which creates difficulty in understanding what will be the expense of a patent under this Bill; it is provided that the fee of the Attorney-general for preparing his report and bill shall not be taken to be included in the fees in the Schedule; consequently we are at a loss in ascertaining what will be the total expense of obtaining a patent: the present expense of a report is four guineas, but what it will be in future does not appear.

777. Is it a fixed sum?

Yes; and the present bill is 15 *l.* 18 *s.* 6 *d.*; but that is not the document here referred to, it is a new document altogether, and on the old bill there is a stamp duty. I do not know whether it would require any special exemption in this Act to exempt the new warrant from the stamp duty; I have taken it as probable that the Attorney-general would charge 10 *l.* for the bill, and four guineas for the report.

778. Do you think it desirable that that should be put into the Bill?

I think not, if it is understood what will be the amount.

779. Are there any provisions in Lord Brougham's Bill that are not in this Bill, and which you think it would be advantageous to insert?

The Bill (No. 2) weaves in so much more of the present practice (and, therefore, will be less difficult to carry out), that I thought it desirable to look at that Bill rather than at Lord Brougham's Bill. There is one clause in Lord Brougham's Bill that I think something might be made of; it provides for the case of disclaiming where there are two patentees, that one may disclaim without the

the other, which at present he cannot do; they must both disclaim; that would be highly desirable; but I think it should be guarded in this way—notice should be sent to the co-patentee, and he should have liberty of opposing the disclaimer.

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780. Would not that be a subject coming more within the rules of the Commissioners than an Act of Parliament?

Yes; but though it may be called a detail, I never like to leave details of vital importance to any declaration of that kind; because this power, though it would be of great use, might be very much abused if the co-patentee had not notice and opportunity of opposing the disclaimer.

The Witness is directed to withdraw.

ADDITIONS to Evidence given by *F. W. Campin*.

1. In regard to what I stated as to the Principal Secretary of State submitting all petitions at once to the Commissioners of Patents, or to their officer nominated in that behalf (which officer might be a Commissioner specially nominated to this business), I would add, that such Commissioners or such officer should be charged with recording the notification made on the petition at the Home Office, or Principal Secretary of State's Office, as to the date of the presentation of petition.

2. In regard to the preliminary protection obtainable on the presentation of a petition. In order to ensure the correspondence and agreement between the full and complete specification and the preliminary statement, or provisional specification given in with the petition, no patent should be completed or Great Seal affixed by the Lord Chancellor, until the full specification is filed with and approved by the Commissioners, or their officer aforesaid. This approval only to be withheld if the patentee does not recite in said full specification his preliminary statement or provisional specification *in extenso*. The Lord Chancellor to have power over the grant until it is sealed; this would, I think, act as a spur to the filing of the full specification with the least possible delay.

3. In regard to the assessors or official scientific witnesses, I would remark, that if the Committee does not think it desirable to legislate for their assisting in courts of law, it would yet consider it desirable to provide that they should be appointed to assist the Commissioners or their officers, or the Attorney or Solicitor-general, &c. in such special cases as may be necessary. The present practice of calling in men of science, pitched upon hap-hazard by the officer, and not sworn either to secrecy or faithful discharge of duty, &c., is anything but becoming or desirable.

4. I would suggest, in addition, the registration of patent agents by the Commissioners, with power to them to strike from the register those guilty of gross misconduct.

F. W. Campin,
156, Strand.

Note.—It would be highly desirable if the Commissioners of Patents could hear and determine appeals from any decision of the Registrar of Designs, under the Designs Act; and if all rules made for those Acts by the Board of Trade were approved by the Commissioners of Patents.

F. W. Campin.

THOMAS WEBSTER, Esquire, is called in, and further examined, as follows:

T. Webster, Esq.

781. MR. CAMPIN has stated that Scotch patents are dealt with by Scotch Judges on the strength of English precedents; is there not something authorizing them so to deal with the law?

I think the meaning of it is this—and I can refer to passages in different judgments explaining it—they have their own forms of proceeding upon Scotch patents; they have the form of suspension and interdict, and action for damages; but the Scotch Courts and the English Courts being bound by the ultimate decision of the House of Lords, the Scotch Judges refer to the English cases as precedents. There is very little patent law in Scotland, there having

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been only two or three cases in the last ten years, and perhaps twenty in the last century.

782. But they could not apply English precedents, with a view to impose restrictions upon the people in Scotland, without having some authority for so doing?

The restrictions that they impose upon the people of Scotland are derived from the patent. The prerogative of the Crown grants the patent under the Great Seal, and makes the using of the invention by another party a wrong act in Scotland in the same way as in England; and, therefore, the right is created by the patent under the Great Seal in Scotland, precisely in the same way as in England, both flowing from the prerogative of the Crown.

783. Then the common law of Scotland gave force to the prerogative of the Crown in granting the patent?

Yes, it is part of the prerogative of the Crown; and, therefore, the proceedings upon the patent in Scotland are precisely analogous to the proceedings in England; the forms of the proceedings are different, and the Judges in Scotland refer to the precedents in England as those by which they are guided.

784. Therefore the patent law in Scotland is very much the same as the patent law in England?

Yes.

785. The Scotch Judges are in the habit of administering the patent laws in the same manner as the English Judges?

They are.

The Witness is directed to withdraw.

JOHN DUNCAN, Esquire, is called in, and examined.

John Duncan, Esq.

786. YOU are a solicitor?

I am.

787. Have you had any experience in the practice of patents?

I have had very considerable experience; for the last 20 years I have been more or less engaged each year in patents for others; and I have had an interest in patents myself to a very considerable extent.

788. As a capitalist, or as an inventor?

As joining in promoting inventions, not as being an inventor myself.

789. Have you had an opportunity of reading the two Bills which are before this Select Committee?

I have.

790. Are there any observations which you wish to make upon either of those Bills?

If your Lordships will excuse me for having dealt with them in the way I have done. In looking at the two Bills, I have treated them both as having been brought forward on the basis, that it is indispensably necessary that the patent laws should be amended, and that one patent should extend to the three countries, and that the cost of the one patent should be very much less than any single patent has hitherto been.

791. Do you concur in those principles?

I do entirely. Looking at these Bills, as founded upon that basis, I have considered how far they would meet the efficient amendment of the patent laws for the future, and, so considering, my impression is, that reflection upon the subject leads to this conclusion, that inventions coming forward for the purpose of being patented are of two classes; one class being where the inventions are perfect at once, and where the inventor does not want to be delayed a single day in getting his patent; and the other class being where the inventor, having sufficiently invented something, to desire to secure the invention as a property, wishes to be protected for a certain period of months, within which he may perfect his invention. Looking at the matter in that view, and closely following the facts, and what an inventor would do according to either of these two positions, my impression is, that the law should fall into concurrence with those facts. If an inventor comes forward with a perfect invention, he ought not to be

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be delayed a moment in getting his patent, but he should get his patent on application, dated the same day as he lodges his petition and specification. Another inventor, who likewise lodges his petition, together with a specification, describing, in a more or less perfect degree, what his invention is, should be entitled, if he pleases, for a limited period, to perfect his invention, without prejudice to its novelty, and within that period to obtain the letters patent for that invention in its perfected state. This latter inventor should be at liberty, before he asks for the patent to be actually granted, to lodge a second and more perfect specification, to be adopted in lieu of that which he lodged at first with his petition; and some officer (the Attorney-general or the Solicitor-general, in my apprehension, would be the best parties) should then look at his first specification and at his second specification, and if he found them setting forth substantially the same invention, but only perfected in the second specification, instead of altered, changed or made another invention, he should be at liberty to report to the Lord Chancellor, that the patent should bear the date of the lodgment of the first specification and petition. On the other hand, if, upon looking at both the specifications, and contrasting them, the examining officer should come to the conclusion that the party had availed himself of the period for perfecting the invention described in his first specification to produce a new invention, something quite different, or largely in addition to the one which he originally described in his first specification, the examiner should have the power then of reporting to the Lord Chancellor that the party was entitled to letters patent for the second specification, but that they should not bear date previous to the date of the lodgment of the second specification.

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792. Would you think it necessary to specify these arrangements in this Bill, or do you consider that the Bill (No. 2), giving the Attorney-general the power to date the patent from the time of the first deposit, is sufficient?

I apprehend the power in the Bill is not sufficient; it is indefinite, and not founded upon a principle; I looked at that circumstance of that power being given to the Attorney-general in Bill (No. 2); but my impression is that the principle I seek to have adopted is a large and an important one, and that it should be laid down distinctly in the Bill. I repeat the principle, that an applicant for an invention which is perfect may get his patent at once, and that an applicant for an invention which is not perfect may have a certain period to perfect it, and lodge a second specification to be contrasted with his first specification, and that the Attorney-general may consider him entitled to a patent of the date of the first lodgment, or may come to a decision that he is entitled to a patent of the date of the second lodgment; but, looking at the general power in Bill (No. 2), as to fixing a date, I cannot comprehend at all how the Attorney-general could arrive at any other but those two dates I have mentioned; there is nothing which could guide him to fix any intermediate date between those two; and, therefore, if that be the case, my impression is, that it would be more satisfactory to the inventor, and render his position more secure to him, and that he would know better how he was dealing with the matter as regards an immediate grant, or as regards retardation of the grant, if the Bill defined the whole operation and system to be pursued. The public, dealing with inventors, or assisting poor ones, would know with certainty on what grounds inventors could get patents, bearing date on the days of lodging their petitions, and on what grounds they would get patents if they changed their specifications to the extent that they departed altogether from the first specifications. Taking that view of the matter, I have tried to define, by clauses in legal language, the system which I would propose to carry out; if your Lordships pardon me for that liberty I have taken, and will allow me to read the headings of the clauses which would carry out my notions, I would only offer, as I proceed, a few observations, which would explain more clearly the system that would be introduced into one of these Bills. I have taken the Bill of Lord Brougham, which Bill came to my hands first; in taking that Bill, I alter Clause 4, by stipulating that the petition for the grant of letters patent shall fix the title to the invention of the applicant, and shall be accompanied by a specification of his invention, and that a record shall be immediately made in a book of all petitions in the order in which they are deposited; then, leaving out part of Clause 4, from the words, "and the letters patent" to the words "Provided also, that," and striking out Clause 5, I propose to insert several clauses, Nos. 5 to 11, and the heading of the first of these clauses

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is as follows : " Applicant for letters patent may, upon deposit of petition and specification, require and obtain an immediate grant of letters patent, dated as of the day of deposit of his petition." Then I have added to that clause a proviso, to which I will afterwards revert, to the effect that " letters patent, provisionally registered, under Designs Act, 1851, may be granted as of date of provisional registration." My impression is, which I will hereafter explain to your Lordships, if you will allow me, that the Designs Act of this year must, in some way, be amended by this Bill, with a view to taking care that an inventor, provisionally registered, should easily obtain his patent of the date of provisional registration. The heading of the second clause I propose is, " Applicants may delay for six months proceeding with patent, or may lodge during that period a second or amended specification." The heading of the third clause is, " Thereupon the petition, original specification and second specification to be referred to Attorney or Solicitor-general." The purport of the fourth clause is, that " The Attorney or Solicitor-general may thereupon report to the Lord Chancellor, recommending the date of patent to be the date of lodgment of petition, or date of lodgment of second specification, and patent shall be granted of date so recommended." Then to that clause I have added the proviso, that the second specification, after it is deposited, may be altered by the consent of the Attorney or Solicitor-general, to confine the same within the invention claimed by the original petition and specification. The reason I give for that proviso is, that I think that an inventor who may have lodged a petition and first specification, and who afterwards lodges a second specification, should have it in his power, if he finds the Attorney-general or Solicitor-general's opinion to be that the second specification goes beyond the first specification, and that therefore the invention will be entitled only to letters patent of the later date of the lodgment of the second specification, to say, " I will prune and cut down the second specification, which you think carries the invention beyond my first specification. I am intensely anxious to have letters patent of the same date as the lodgment of my petition and first specification, because my invention is substantially that which I have there specified ; my anxiety is about my firstly described invention, and it is not in the new matter which I have introduced into the second description, and therefore I prefer to cancel that new matter rather than hazard the date of the letters patent, being any other than that of the first deposit of my petition." In the next clause I still further provide for the inventor not being prevented from obtaining letters patent of the earlier date, by stipulating in that clause thus, " Applicant may, in case of the date recommended being that of deposit of second specification, withdraw the same, and stand upon his first specification, and claim patent for same of the date of petition being lodged." Thus, as your Lordships will observe, I seek to provide that even after the alteration of the specification is permitted, if that alteration still leaves the Attorney or Solicitor-general, the person deciding the matter, in the position of saying, " You, the inventor, have come forward with this second specification, in my opinion, for a perfectly different thing from that which you claimed at first ; I must, therefore, notwithstanding the alterations in that second specification since its lodgment and inspection by me, recommend in my report to the Lord Chancellor, that the date of the patent shall be the date of the second specification." I think, in that case, the inventor should have an opportunity of saying to the Attorney or Solicitor-general, " I respectfully differ from you, but as your authority is paramount, and your decision cannot be questioned or reversed, I withdraw my second specification ; I will take all the chances of standing upon my first specification, and therefore I claim a patent of the earlier date." I do not see that any harm could be done to the public by that, and it would be only doing justice to the inventor, because it is allowing him time within which he is to be at liberty to perfect the specification which he originally lodged ; but if he goes beyond perfecting, and creates another and different invention, he must take the chance of having his patent dated of the later date. The next clause provides that the specification should accompany the report of the Attorney or Solicitor-general ; it might in some cases be the original specification, and in other cases it might be the substituted specification ; and those specifications, so sent to the Chancellor or Great Seal Office, would be enrolled, and be open to public inspection after the issuing of the letters patent, but not previously ; until then they should be secret, except to the Attorney and Solicitor-general. Then by the next clause, I provide that if no patent be sought by the applicant within

six months after he has lodged his petition, or a second specification be not lodged, that then the application should be null and void. The cessation of any proceeding would be tantamount to an admission on the inventor's part, that though he had begun an application, he was going to abandon it; and I apprehend that in that case the application should be considered null and void; and the Commissioners appointed under the Act of Parliament would make some rule or regulation as to what should be done with the petition and specification, abandoned practically as waste papers, either to destroy them without anybody seeing them, or to store them in some place where they might possibly be of use at a future time: these papers should in some way be got rid of, and no longer dealt with as of any use. These clauses, of which I have read the headings, would carry out what I should very much desire to see as the amendment of the patent laws; and I have taken the liberty, being in the profession, of drawing up the clauses themselves, and now handing them to your Lordships; but the headings which I have read explain the system which I should wish to see introduced. I approve of the clause in Lord Granville's Act under which the Attorney-general has the power to fix the date of the patent; but upon closely following the subject, I think your Lordships will find that there can be but two dates. Mr. Webster suggests the case of rival claimants in which the date would have to be settled; but my opinion is, after all the experience I have had, that rival claimants should not be known; that letters patent should be granted of the date at which the petition is lodged, in the manner I have described; and that there should be no caveats or opposition allowed between inventors; that letters patent should be granted to every body applying in the order of lodgment or deposit; and upon the points, whether one patent is earlier in date than another, or whether one is entitled to displace another, or is an infringement on or imitation of another, or is useless or invalid for want of novelty, or whatever may be the quarrel or contest between conflicting inventors, I strongly desire to see the questions referred to the legal tribunals to decide after letters patent have been granted. These questions should not be preliminarily decided in any shape by the Attorney or Solicitor-general.

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793. Then you would leave no discretion to the Attorney-general in determining upon the novelty of the invention?

I would not: my opinion is, that if an inventor has lodged a petition and a specification, the Attorney-general should merely give his report upon the question of the date; that is to say, the inventor should have his patent of the date he has lodged his petition, or of the date that he has lodged his second specification; and one of the reasons I give to your Lordships for entertaining the opinion that the Legislature should not now provide for a preliminary investigation into novelty or infringement is, that we have arrived at a period when there are in existence an immense number of inventions which are clashing with each other every day, infringing one upon the other, and being many of them defective as respects novelty and utility.

794. Do they lead to any practical inconvenience?

Not at all; and therefore it is that I want to see the system carried out of patents being given without discrimination, and of course without guarantee of validity. At present the Attorney-general has a petition brought before him to report upon; there is no opposition; a patent for the self-same invention may, a week before, or the year before, have been reported upon by him: the applicant, not knowing of the previous invention, may apply under another or even the same title for the same invention, and fancy himself the inventor. Get a patent, and specify under it, and it may afterwards turn out that there is a patent for the same discovery a year old. If there be no opposition, that is the state in which matters are at present under the existing practice; if there be opposition, the actual state of circumstances is brought by the contending parties before the Attorney-general; he decides that the invention brought before him, which is opposed, has already been patented, or that it is interfering with another person who is seeking a patent, or has entered a caveat. My own impression is, that even if the new system were to lead more than the existing one does to duplicate patents, if I may call them so, there is no harm done by that; the party taking the second patent will merely spend so much money uselessly; he does not interfere with the rights of any other person; he merely puts himself, as the second inventor, in a false position: I think there is not any objection to con-

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tinuing that system. Inventors must be careful to look beforehand to see what exists already previously to their patenting an invention as new; and they will be assisted in this respect, as they now are, by the intelligence of the patent agents whom they consult. As inventors will not have to spend so much money for patents, they will suffer but little pecuniary loss when they find that their inventions have been previously patented by others.

795. The plan you propose would give no power to the Attorney-general, but would merely make him a registering officer, to register the patent when the petition was presented?

Yes, except in the cases where he has to contrast specifications.

796. You would not have the Attorney-general decide the question of novelty?

No.

797. You would leave that to the courts of law?

Yes; I do not see how you can work out satisfactorily a complete system of preliminary inquiry into novelty, by means of the Attorney or Solicitor-general, if you mean him to enter into such an inquiry before any patent be granted. In such a country as ours, so active and inventive, where even the fixing of a peg or of an additional wheel in a particular machine may produce an invention worth 100,000*l.*, I think it would not be proper that the Attorney or Solicitor-general, or any examiner appointed in his place, should have the power, by a preliminary inquiry at chambers, of stopping or refusing a patent, and of changing or taking away the property of persons whose rights may be in some collision. I think that patents ought to be granted to two persons whose inventions may conflict according to the date at which they lodged their petitions and specifications; if both the same day, say 1st of January, let the first deposited patent be dated the 1st of January, and the other be dated the 2d of January; and then I would leave the parties afterwards in a court of law if there could be any question between them to raise that question, and get it settled by judicial inquiry. But if you give the Attorney or Solicitor-general the power of settling grave and intricate questions at his chambers, in a preliminary inquiry there are no counsel present, there is no rigid examination of witnesses on oath, there is no Judge presiding, nor intelligent jury, nor is there any of that mature investigation and deliberation which are now brought to such a point of perfection in the inquiry into clashing or disputed patents, that I think it impossible to have any thing superior to it in any country. The proceedings, no doubt, are expensive, but generally they are expensive only when large sums of money or valuable patents are involved. By slow degrees, and especially by means of the amendment of the patent law under Lord Brougham's Act, by which parties are required to state their objections to the patent of a plaintiff which is being disputed, my belief is that we have arrived at absolute perfection in trying the question fairly between two parties, whether the plaintiff or the defendant is in the right. There is nothing in the fact of there being duplicate or triplicate patents which in the least interferes with the rights of parties. The valid patent first in date must vanquish the infringers or imitators who follow it by patents of subsequent date.

798. If your plan were carried out, what object would you have in imposing this duty upon the Attorney-general; why should it not be done by a simple Registrar?

I should say for this reason: although there is no necessity for the act of a great mind in reporting on a perfected patent—for the report there is much more a proceeding of form than of substance; yet, when it comes to the question of contrasting between the first and second specification, it requires the intelligence of a lawyer, and it requires the honour of a gentleman to do this efficiently and satisfactorily: there is a certain degree of private disclosure and discussion going on between the inventor and the Attorney or Solicitor-general, no patent yet being in existence. The examination of an invention in such a position is a matter which no third person has any thing to do with, but it is a matter which the inventor has very closely to do with, and his interests and property may be seriously involved in it; he submits to the Attorney or Solicitor-general, as an intelligent and honourable mind, and the adviser of the Crown, that there is no difference substantially between the second specification and the first;

first; but if the Attorney or Solicitor-general presses the point that the claim made in the second specification is not the same as in the first specification, the inventor must either reason the Attorney-general out of that notion, or give way to his opinion, and the inventor may be pushed at last to come to the conclusion that he will withdraw that which he has put into his second specification, which the Attorney-general should continue to think was a new claim or new invention created since the date of his first specification, or that he will withdraw his second specification altogether, and take his stand upon his first specification.

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799. Would not that system which you propose cause great risk and trouble to an inventor who had taken out a patent?

I apprehend not; the judicial discussion about clashing patents is costly, and so it always will be; it cannot be otherwise; but you see every day now that patents are granted for the same invention, or imitations, unless there be effective opposition before the Attorney-general, which there seldom is. Now, where patents are thus clashing, and it turns out that some patents have been issued, not for novelties, but for old things, you find no evils arise: some disputes as to clashing patents go to law; but I should say that 49 cases out of 50 do not go into Court, simply because Mr. Webster, or some other barrister who is consulted, knows as well as the Court what must be the result of litigation, and advises accordingly; and, therefore, contest is prevented by an opinion being expressed, which points out to the parties concerned that litigation would be useless.

800. You would get rid of all that preliminary process of caveats and opposition?

Yes.

801. Then what information would the Attorney or Solicitor-general have to enable him to satisfy himself as to the similarity or dissimilarity of the two specifications, and what means would he have, in your view, to enable him to come to a satisfactory judgment upon that point, with a view to settle the date of the patent?

He would have no means but his own intelligence; if the party lodges a specification, which is perfected at the time of the petition being presented, no difficulty arises; if he has lodged his petition and specification on the 1st of January, he is entitled to his patent as of that date; and if a person came in on the following day, and presented a petition for the same thing, he would be entitled to a patent as of the date of the 2d of January; each may get a patent, and then they may settle afterwards between them which is entitled to the invention; the first in date must succeed if his specification be faultless. Then, when an inventor who has not got a perfected invention has lodged his petition, he also deposits a specification as perfect as it can be—I mean that he should be forced by the mode he will be afterwards dealt with to deposit something better than a mere crude idea or notion; he should have something like a thoughtful or matured specification lodged; then, having lodged that, he does not proceed with the patent, but goes on improving and testing his invention; and he comes forward within six months with another specification, which he deposits in the self-same office. Immediately upon the lodgment of the second specification, I should treat him as prepared to take out his patent; both specifications would then go before the Attorney-general; he would open both; he would have the petition; he would see the title (and I would not allow in any case the title to be changed during an application), and he would read the two specifications, which he would contrast with each other; and if he found that the second specification was substantially the same invention, but only with those improvements which the Act intended that the party should be at liberty to make, he would decide that the party who had invented and deposited his invention had invented at the date of the first specification, and therefore was entitled to a patent of that date, his second specification being that to be enrolled.

802. What means would be afforded to the Attorney-general of determining in his own mind whether the two specifications were substantially the same, or whether any material improvement or addition had been made; he would not obtain that information which he obtains when there is opposition and the matter is sifted, unless you can suppose that he himself is a sufficient judge of the nature

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of the invention which is brought before him, which one can hardly assume is the case, however learned he may be in the law ?

I am assuming that the Attorney-general has sufficient intelligence to be able, upon comparing the two specifications, to come to a decision whether they are substantially the same or not. It might or might not be necessary, in the opinion of the Legislature, before passing this Bill, that a scientific man acquainted with all subjects should be the person chosen in lieu of the Attorney or Solicitor-general ; or it might be decided that the Attorney or Solicitor-general should have power to call in assistance of a peculiar character to aid him in coming to a decision ; but my impression is, that there is no safer person with whom to repose the duty than the soul of honour, whom I call the Attorney or Solicitor general ; they are men who have been drilled up to a point of the highest possible standing with reference to intelligence and probity, and the feeling of every body would, I think, be that of perfect confidence if the investigation remained in their hands ; whatever assistance they called in, the public would be satisfied that the assistance was pure, and that the whole investigation would be worked purely.

803. Would you provide that the Attorney or Solicitor-general should be empowered to call in assistance where it appeared essential ?

I have not suggested that course, because my impression is that the Attorney or Solicitor-general would, in 19 cases out of 20, require no assistance.

804. The cases in which assistance would be required would be confined to a comparison between the first and second specifications, as they would have nothing to do with the novelty of the invention ?

Exactly so. I think it a great advantage that no such power of preliminary investigation into novelty should be given to the Attorney or Solicitor-general.

805. The ground upon which patents are protected is, that they are rewards to the inventors ; anything which would lead to expense in regard to patents would take away from the reward to the inventors ?

I look upon it that a party getting an invention, and paying for it, has an opportunity of knowing what is generally known, and of investigating what has been previously patented ; and if, after that, he patents an invention at a certain price, he takes the chance as to whether it shall be a thing which is new or old, or useful or not, or is to produce much litigation or not. It is impossible for the law or practice to be so carefully framed as to be able with certainty to say to the inventor, " You shall have a patent which shall be positively new, and upon which conflicts or litigation cannot possibly arise ;" it is not in human power to produce such a result.

806. Does not your plan place existing patentees in a more disadvantageous position than at present, inasmuch as they would be obliged to have recourse to the courts of law, in order to vindicate the rights which they have acquired under their patents ?

Existing patents cannot be injured by being followed by patents of later date for imitations.

807. An existing patentee would be bound to show to a court of law that his rights had been infringed ; whereas, at present, by going before the Attorney-general, and raising the question between the patent sought for and his own, he is not forced into a court of law ?

That is quite true ; but this preliminary method of settling between conflicting inventions or imitations is limited to a very few cases. Inventions already patented disregard patents following, and seldom oppose. Imitations acquire, by being patented, no force or power to injure a prior patent.

808. Would not your plan operate much more prejudicially upon the poor patentee than upon the wealthy patentee ?

My impression is, that it would not. My impression is, that the poor patentee will be placed in a much improved position, by having the certainty of his invention being patented without being exposed to the risk of a preliminary inquiry, not in public, but in private chambers, at the time he applies to take out his patent ; I think you can hardly put him in a worse position than he is at present. Under the new system I have suggested, after he has patented his invention, he can boldly call in the aid of others to assist him, and he is not afraid to speak out and to display his invention ; he has got his patent ; his invention is disclosed, and the public can judge of it, and can be invited to his assistance.

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809. A rich person might come in after the poor man had lodged his petition and take out a patent for a similar invention himself, and, in that case, would it not be necessary for the poor man to have recourse to a court of law; whereas, under present circumstances, his presenting a petition to the Attorney-general, and stating that he was the inventor, might prevent the grant of a patent to the rich man who sought it?

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The poor inventor at present presents a petition, and the rich man may follow him with the same invention. The former then opposes the latter before the Attorney-general, and may prevent the patent being got. But there is a limit upon the poor man's operations in this respect; he must have lodged a caveat to entitle him to get notice of the proceeding by the rich man with his patent. If the poor man has not lodged that caveat, he does not get any knowledge of the fact of the rich man following him; he is therefore very unprotected. If he has not lodged a caveat, he gets no protection whatever against the rich man. But, supposing the rich man is brought before the Attorney-general by a poor man's caveat, the rich man tries, when they are before the Attorney-general, to upset the poor man's invention. The Attorney-general may decide that the rich man is seeking for the same invention as the poor man who has preceded him; and, if so, he will stop the rich man. If that course of proceeding could be made a general principle or system, and worked out with perfect fairness always, it might, in the opinion of some, be desirable, and it would benefit to some extent the position of a party who should be proceeding first for an invention, and who should get the earlier patent. But it does not follow that, if the first inventor be poor, and gets a patent, and be followed by a rich man seeking a patent for the same thing, that the rich man can do him any mischief. He may try to do mischief; but if the first inventor has a good and valid invention, which has the prior patent, and the other is an infringement of it, the law will crush the second party, however rich he may be.

810. But your plan would oblige the poor man to go into a court of law, whereas at present he has an opportunity of protecting his rights without going into a court of law, by entering a caveat; is not that a protection to him which, under your plan, would not exist?

Yes, I admit that it is; but it is an imperfect protection. At the same time that it is some protection to the inventor, it involves this consequence, it gives a right to the Attorney or Solicitor-general in his chambers to settle questions which may be very nice questions, and extremely difficult, and his decision is come to without all that elaborate and careful investigation which now takes place in a court of law.

811. Would not the effect of your plan be, to increase litigation rather than to diminish it?

My own impression is, certainly not; if the oppositions that would be carried on under the new Act be not much more efficient than those which have been carried on under the present rules of practice; unless there be a system by which every patent is to undergo a careful examination by a competent examiner, with a court of appeal against his decision, as in America, so that there shall be no duplicate patents granted, and that no person shall be able to take out a second patent for an invention which either has been at any time patented before, or is in public use, or publicly known before, or is in the state of being already under petition to the Lord Chancellor with a view to have a patent granted for it; unless Parliament were by a new Act to bring about some system of examination into novelty and utility of a complete kind, with a view of determining whether each patent applied for ought to be granted or not, there would be no effective lessening of litigation; there would be imperfect legislation upon the subject, and there would be inconsistency of practice, and great danger to inventors while so much examination should be going forward before a patent had been obtained. There must be a general, uniform and imperative system of preliminary examination, or none at all, for the present practice only enables the Attorney-general to judge whether the proposed patent interferes with other patents granted or in the course of being granted, and does not make him inquire into the general question of novelty; and if there be no opposition, there might be two patents issuing for the same invention. Therefore the consideration of the question does not lead to the inquiry merely whether litigation is to be increased or not, but you must go to the root of the matter, and you must lay

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down as a principle, either that every body's invention must be subject to rigid examination before a patent be granted, or that every inventor shall be entitled to a patent in the way I have suggested, leaving the courts to settle afterwards between litigants, if they become such, which is in the right, and has the priority of sound invention.

812. You believe it would be practically impossible to give such a power to the Attorney-general?

I believe it would be exceedingly difficult, and that it would work unfairly to inventors; they would say that such a jurisdiction of deciding upon novelty, carried out as it has been, would not give them fair play. My impression is, that inventors would prefer to get their patents, and that they should have a court of law to decide between contending patentees who was in the right.

813. You contemplate a much more perfect system of record and greater facility for obtaining a knowledge of patents already granted than exists at present?

I am speaking throughout on the supposition that there will be a perfect register of future and all past inventions; that, as regards the future, inventions patented will be recorded with much greater accuracy, and the means of examining them and acquiring information respecting them will be much greater than at present exist.

814. You stated that in disputed cases 49 out of 50 did not go into court, but were settled upon the opinion of counsel; is it not the fact that a great number of cases are settled by compromise between the parties?

Yes; my impression of the patent laws is, that there has been a great deal said without necessity about the poor inventor; that he does not get his rights, and that he is involved in litigation; I do not think that he is in this way oppressed; the oppression that he feels is in the first step, in having such an enormous and crushing sum to pay for patents; and the second oppression that he feels is, that he cannot ask any friend or adventurous person with money to put down 100 £. and to take a share in the invention without that friend or person having his whole property dragged into jeopardy under the partnership laws of this country by his investing that 100 £. If Parliament will grant the patentee a patent with certainty, and without opposition or trouble, and at a cheap rate, and also enable him to take in a partner or partners who shall be liable only to the extent of the sums that they put down or invest, you will find that the poor inventor would not be oppressed, but he would be able to get the assistance that he wants; and when he came to the court of law, he would be as strong as any parties who opposed him; he would have got his invention matured and into operation, if it was worth any thing.

815. I asked you whether compromises did not take place, because I wished to know whether it is not your opinion that a party having taken out a patent on the same subject would be in a more favourable position to exact a compromise?

If a poor man has got a patent, and he is followed by a rich man, and the poor man has the protection of the law as being the first of the two, he has the power of compelling the rich man to come to a compromise much more easily than he would have when he was battling with such a man before the Attorney-general only, without having the security of a patent sealed; he does not know how the Attorney-general will decide, nor does he know what may be the next shift or trick that the rich man may resort to; because when the rich man is foiled before the Attorney or Solicitor-general upon one opposition, he puts his head to work to get some new title or dark description which will pass the caveat, and, passing the caveat, he has escaped the poor man after all, and got a patent: I am speaking of the present system; and therefore the poor man, though he may temporarily stop the rich man from following him, yet, unless there be some insurmountable difficulty in getting words to clothe a new description in sufficient darkness for it to pass the caveat, the rich man may double upon the poor man, and escape him, by choosing a title which shall avoid the caveat.

816. You think that, under the present law, the inventor is liable to be cheated and to lose his protection?

If he has no caveat, he has not any protection; and even if he has a caveat,
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he has very little protection indeed. I am not sufficiently acquainted with the minutiae of formalities in each office, because I have not practised in them as a patent agent; but, independently of the particular method that I have pointed out of the rich man adopting a darkened title, and so passing a caveat, obstructions, I believe, may be offered to the poor inventor before the Lord Chancellor and elsewhere by the rich man, whose property can purchase agency to do that which shall upset the poor man, and bring him to the ground at the time when he is weakness itself, because he has no patent and no specification, and nobody in consequence will come to his assistance, and even a lawyer cannot come to his aid, and he can scarcely get an opinion, although it might cost not a guinea.

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817. Your object is to give parties a greater facility in obtaining patents?

Yes.

818. And to leave the question of whether the patent is a good patent or not to be settled by the courts of law?

Yes; I am convinced that in many cases the matter would not go into a court of law; where there is a collision between patentees, they cannot fail to learn, from scientific men or legal advisers whom they consult, which has the priority, and which must give way; fights do take place in patent cases, but they are very few and important, and the contest generally is a very heavy one between the two litigants.

819. You see no evil likely to arise from the great multiplication of patents?

No.

820. In practice, do you find that caveats are ever entered on behalf of the public, or are caveats exclusively confined to those who have a patent interest?

They are confined to those who have a patent interest; there is a regular system pursued by those who have a particular subject-matter of invention in hand which they want to monopolize; they have incipient patents carried past the report of the law officer, without having any inventions; these incipient patents are like bags to receive the inventions when made, of which they may have no conception or notion until after the application for a patent has passed the Attorney-general. Under the present system, very recently adopted, this practice is not so easy as it was formerly, because all applicants for patents have to lodge short descriptions of their inventions; I believe it is an existing habit, also, for parties to lodge caveats of different kinds with different titles, to sweep the whole subject-matter they are engaged upon, so as to be quite sure to catch any man who is attempting to pass them, and to get a patent.

821. A caveat applies to an entire class of inventions?

Yes; there is an absurdity occurs sometimes which you cannot very well help; I believe that if the clerk of the Attorney or Solicitor-general finds a single word in a caveat referring to the subject of an invention seeking to be patented; for instance, if in the title of an invention the word glass occurs, every person connected with glass manufactures who has caveats gets notice from him, although many of the caveats may have nothing whatever to do with the invention.

822. Are there any other observations which you wish to make on these Bills?

There is another matter that I would take the liberty to suggest: whenever this Patent Amendment Act passes, say in July next, there will have been certain English patents granted, but not specified; there will be other patents where proceedings have been carried on to a certain extent, up to very near the Great Seal, and where parties, although this Act shall have passed, may elect to push on, and to have the Great Seal affixed. An English patent, when sealed, will have cost a hundred and odd pounds; my impression is, that any party who is in the position of having obtained an English patent not specified, and where the specification is not due, is unquestionably entitled to have the like benefits that new applicants will have when this Act has passed; and that upon any such party presenting a petition, together with a copy of his letters patent that he had obtained, and of his proposed specification, and praying that he might have a new grant of letters patent for the whole United Kingdom, bearing the same date as his said English letters patent, he should have the privilege of the new patent for his invention extending to Scotland and Ireland, bearing date as of the date of his English letters patent so unspecified; but I go farther

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than that: there are patents for England which are not obtained for Scotland or Ireland; but where specifications have been enrolled, some of them for one, two, three and four, and some of them for 13 years, and so on; the patents of that kind must be very numerous, because in a Return which was made to the House of Commons in 1848, of the patents for England and Ireland and Scotland, I see that, contrasting them for each year, the patents taken out for 1845, in England, were 575; in Scotland, 205; and in Ireland, 99: in 1846, in England, there were 494; in Scotland, 178; and in Ireland, 89: in 1847, in England, there were 498; in Scotland, 168; and in Ireland, 74. Your Lordships will see from that Return, how completely the present cost of patents has prevented parties from taking out patents for the three kingdoms; and there is no doubt that this has been a serious evil to inventors, and does them more mischief than perhaps anything else. What I think would be the proper way of meeting that state of things would be, that after this Amendment Act passes, the party who has an English patent should be at liberty to present his petition, together with a copy of the letters patent, and a copy of the enrolled specification, and to pray that a new grant might be made to him for the remainder of the term of the letters patent for England, and that the patent should be of the same validity in Scotland and Ireland as it was in England; there would be an evil in that, I apprehend, only to this extent: if in either Scotland or Ireland an invention patented in England was in actual public use, it would not be right by a new law to deprive parties of the privilege of using the invention where in public use; therefore, to any clause which gave the liberty of extending a patent to Scotland and Ireland, I should add the proviso, that if the invention were in public and common use in either country, Scotland or Ireland, the patent should, as regards that country, be void.

823. But is there not an injustice where a man has taken out a patent for the three kingdoms, and has paid treble the sum for those three patents?

I do not think it is an injustice. One man has been rich enough to pay three sums for taking out patents for the three kingdoms, and another has paid only one sum, and has taken out only one patent; but the law will by this amended Act, have become altered since; and it would be rather hard to say that a man possessing a patented invention for England should not have the benefit of the law, and of the extension to Scotland and Ireland, because he had not paid three sums for three patents.

824. Under these Bills, a party would obtain considerable relief in the extension of his patent to Ireland and Scotland, inasmuch as the charges upon such extension would be the charges contemplated by these Bills, and not the high charges which at present exist?

Yes; but under the Bills, a patent cannot be obtained for Scotland and for Ireland of an invention which shall have been patented in England before these Bills pass into a law. The English invention having been obtained, the party ought to pay no more for Scotland and Ireland, and to get his existing English patent extended to both those countries. What I want to provide for is this: an amendment of the patent law having taken place, this singular inconsistency arises, that you have Scotland and Ireland as separate countries where a man will not have patents, although he possesses one for England which has cost him more than the charges under this Bill will be for one patent to extend to the three kingdoms. I want, as far as it can be justly done, to cure the inconsistency and evil; why should he be worse off than a new inventor? I propose to extend to Scotland and Ireland the English patent, and to give to it the same validity in Scotland and Ireland, for the remainder of the term, as in England; with this proviso, that the invention shall not have been in common and public use by others in Scotland or in Ireland at the commencement of the present Session; you must fix some period, and I take the commencement of the present Session with a view to prevent persons, seeing that this legislation is about to take place, coming forward and taking measures to defeat it. I have instances in my mind where it would work very injuriously to inventors, if the English patent should not be extended to Scotland and Ireland; and if there is to be a general change in the patent law, your Lordships, I think, would be anxious to give existing inventors the benefit of what I have thus suggested.

825. In the case you suppose, the patentee, by limiting his patent to England,
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has published it in Scotland and Ireland, and has given the public all the benefit of his invention? *John Duncan, Esq.*

Yes; that is the legal result.

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826. Therefore, the public are at this moment in possession of the right of using this invention, which you would propose to deprive them of for the benefit of the patentee?

Yes; but I do it in this way: if the possession of that invention is accompanied with public use, I do not propose to take it away; but if it has not been accompanied with public use, then it has been of no benefit to the public in either country, and no injustice is done to the public in either country by placing the three kingdoms upon the same footing.

827. It might have the effect, that a man in one of those countries might be driven to defend his proceedings, which he would not be called upon to defend as matters now stand?

My impression is, that those countries are amply protected, if it be provided that the patent shall not have been in public use at the commencement of the present Session. If a party has taken out an English patent, and a little time after proceeds to take out a Scotch patent, and a little time after that proceeds to take out an Irish patent, and he gets the Scotch and Irish patents, it is not very clear whether in Scotland and Ireland he might not be turned round by this objection, "You patented this invention in England, and therefore you published it here before you obtained your patent." That question has not been deliberately decided; and, therefore, under those circumstances, you would, if not intending to legislate as I have suggested, have to leave parties who are in the possession of an English invention in the position of not being prejudiced hereafter in going for patents to Scotland and Ireland, and at a cheap rate; but the general law as to patents being about to be altered, by its being enacted that one patent shall extend to the whole of the three kingdoms, it is for your Lordships to consider how you would deal fairly with the case of English patents not extended to Scotland and Ireland. If Scotland and Ireland possess inventions which they have not brought into public use, they are like new inventions in those countries; they have had no benefit from them; and you are, by the extension to Scotland and Ireland of the existing English patent, taking nothing away from the public residing in them.

828. The doubt could only occur upon the short interval that there is between the applications for the different patents; for if a patent had been known and used in England for half-a-dozen years, it would be difficult to extend the protection of the English patent to Scotland and Ireland?

There is no particular date yet fixed, as I believe, by sufficient decisions that will settle that question; it is not a question of a month or a year or two years; but whenever it comes to be deliberately considered, I believe it will turn not upon dates of the English patents, but altogether upon public use in the country, Scotland or Ireland, where the discussion may arise.

829. That is the state of the law as regards patents for the three kingdoms, which are not published at the same date?

Yes; as regards the mode of dealing with the subject of the extensions to Scotland and Ireland, I have drawn clauses; one of them I have headed, "Proprietor holding an English patent, under which the specification is not due, may obtain grant of the same date of a new patent for the United Kingdom;" and then another clause I have headed, "English patents already specified and not expired may be extended to Scotland and Ireland, under the restriction of not being in public and common use in the country to which the extension shall take place;" these patents may be limited, say, to those having seven or ten years still unexpired. The only other point that I had any desire to express an opinion upon was, the importance of giving greater facility to patentees to protect themselves against infringements in some measure in the County Courts: I know that this is a difficult subject; but still, when this law has taken effect, and has cheapened the cost of patents, you will find that registrations under the Designs Act will be very much abandoned, and patents will be preferred; the additional expense of the latter will be small as compared with the benefit obtained, especially as the Designs Act limits the protection to a party having invented a novelty to the protection of such a novelty as shall have

John Duncan, Esq. design as its characteristic; but under the Designs Act, power is given to magistrates, in fact, to decide the question of infringement, and to punish parties for an infringement; and, therefore, the proposition upon that basis does not appear an extravagant one, which shall give to an intelligent Judge of a County Court, especially as he can be assisted upon a question of fact by calling in a jury, the power to decide upon the question of infringement, when the plaintiff limits his damages to 50 *l.* While I say that, and reason in that way, I am aware that the reasoning comes against such a proposition, that you are letting a Judge of unimportance, as it were, in comparison with the Judges of the Superior Courts, decide questions that are now left to the Superior Courts, and which are very serious and important questions, and with regard to which very anxious provisions have been made by law, with a view to take care that the trial of the validity of a patent shall be a fair one, and that objections on both sides shall be stated with great minuteness; but after all the consideration that your Lordships can give to the matter, I apprehend that you must come to the conclusion that County Courts should have the power of deciding upon an infringement where the claim of the plaintiff is confined to 50 *l.*, and where the plaintiff can produce the record of a verdict in the Superior Courts in favour of the validity of his patent.

830. Would you accompany that with an appeal from the County Courts?

I think that an appeal would not be desirable; I would give that power of going to the County Court in any case where the validity of the patent has come in question, and been decided by a Superior Court. The question of infringement must be a question for the individual mind and eyesight of the Judge; but the validity of the patent, which is involved in the question of infringement, having been once tried in one of the Superior Courts, and a verdict having been given for the plaintiff, I apprehend that there can be no danger or impropriety in allowing him to go into the County Courts, and bring before the Judge and jury of the County Courts the question of infringement, only seeking for limited damages of 50 *l.* In the case supposed, the question in the County Court would turn entirely upon the infringement; the validity of the patent would have been settled by the Superior Court; and if the defendant in the County Court is desirous of having the question of the validity of the patent still further tried, he has the power of bringing a writ of *scire facias* to put an end to the patent as a bad patent, and therefore he is not in any degree damaged by the party being at liberty to go into the County Court upon the question of infringement.

831. Is not the question of what constitutes an infringement very often a very difficult question?

I cannot call it a simple question; but there are degrees of difficulty in it.

832. Was not that the question in the hot-blast case; the question was not as to the validity of the patent, but as to what was an infringement?

I think the question there turned upon the point whether the application of heated air was the subject of a patent.

833. Is there any other point?

Following upon the County Court jurisdiction with regard to infringements, I should like your Lordships, if possible, in a Bill like this for the amendment of the patent laws, to try whether anything could be done for the relief of the inventor against continuous legal proceedings in the shape of destroying infringements, because, even if he gets damages, either in the Superior Court or in the County Court, very frequently it does not stop infringement. In my practice I had one very singular case, and I will state it, to show that, unless the infringement itself is destroyed, the success of the patentee in obtaining a verdict is worth nothing. I happened to be concerned for the patentee who brought out a patent for placing back seats to Hansom's cabs. The question of infringement was tried three different times in the courts of law, and in each case a verdict was obtained for the original patentee against the men who had been infringing, viz., the owners of pirate cabs. The result of the verdict was practically this: I got a verdict against the proprietor of a cab for the infringement; I obtained a judgment and execution against him; I found him without any property; and the day before I could sue out execution by law, he would be possessed of the cab; but the same evening he would sell it to another man; and when I should take out my execution, he would be driven to prison in his own infringement.

infringement, and I would have to begin the next day to attack the fresh owner, and to go through the same process of obtaining verdict, judgment and execution; and perhaps that party would be carried to prison in his own infringement, and that infringement would continue still in existence and at work in spite of the verdicts. There is no law to touch such a case, and I do not see how it can be met, except by establishing the French process of, under a magistrate's warrant, breaking the infringement to pieces.

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834. The machinery itself is destroyed?

I do not know what particular process is gone through; but there is that power given, I believe, that the infringement is destroyed, or is surrendered to the patentee, which is practically the same thing. There is no doubt that there are many other cases of the same kind as this.

835. You think that a provision of that kind ought to be introduced into this Bill?

Yes, I apprehend that the County Courts might have a jurisdiction of that kind; that after a second infringement by one and the same party, the jurisdiction of the Judge of the County Court should be extended to his ordering, that by some officer of the Court the infringement should be absolutely placed in a state of nullity. Another matter which I wish to mention to your Lordships is with reference to dissimilar inventions being in one patent. I do not know whether your Lordships propose to provide against that by any clause in the Bill, or whether it is considered that the rules to be issued by the Commissioners would provide against that; for instance, that a man should not take out one patent for the manufacture of hats and for the manufacture of ribbons; but that if he has two or more inventions, which are not naturally linked together in regard to the subject-matter of the invention which he proceeds to make the subject of patent, he should take out two or more patents. I do not know whether that is necessary to be provided for by this Act; but where patents are going to be made cheaper, it would be only right that two different subject-matters should not be included in one patent: the great expense at present of taking out patents occasions several perfectly distinct things being put into one patent.

836. Do not you consider it the duty of the Attorney-general to see that several distinct things are not put into the same patent?

Yes, but it is too late to prevent that; the practice has grown by little and little, and is not easily checked.

837. Is it not the practice, that a great number of incongruous matters are put into the same patent?

Yes, it has been most seriously so. There is a clause in Lord Granville's Bill, which I trust is not going to stand, about foreign inventions; and also the power which is proposed to be given to the Commissioners of fixing the conditions of letters patent is a dangerous power, and might be extended beyond what is meant to be given: power is given to the Commissioners to determine what conditions letters patent shall be subject to. That is a power which might be extended to the injury of inventors most seriously. I have no objection to the provision, giving the Commissioners power to fix the rules concerning the applications and deposits, and so on; all those are matter of regulation and form; but to give the Commissioners the power of determining what conditions the letters patent granted shall be subject to is most objectionable. If you have an Act of Parliament which defines in what way, and upon what conditions, a patent shall be granted, I apprehend you would hardly give to the Commissioners powers so large as would enable them in fact to interfere with the established patent law.

838. That power is granted now to the Attorney-general, is it not?

In Lord Brougham's Act, in Clause 8, there is a provision, "that all letters patent may be made subject to such other conditions for rendering the same void or voidable as to Her Majesty may seem fit;" it rests with Her Majesty to grant a patent, and fix its conditions. The very same regulation as now exists would, under these words, continue to exist; but the provision in Lord Granville's Bill takes the power from Her Majesty and Her advisers, and gives to certain Commissioners that power which at present rests with the Crown. I do not apprehend

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that there would be any injury done by not vesting that power in the Commissioners; the conditions of granting the patent would still rest with the Crown. I have to call the attention of your Lordships to a further point: the Designs Act (1851) has allowed persons to register provisionally inventions exhibited at the Crystal Palace, upon the footing that they may get patents hereafter, which patents shall bear date from the day of the provisional registration. The Act does not provide for the process by which they are to obtain their patents. I apprehend that your Lordships will think that, upon lodging a petition and specification, the party should get an immediate grant of letters patent. Provision for this might very properly come within the first of the new clauses I have taken the liberty to suggest. This would place inventors under the Designs Act (1851) in this position, that at any time, they having provisionally registered, might present a petition, and lodge a specification with the petition, and upon doing so they would get a grant of letters patent, not of the date of the day of the petition, but of the date of the day of the provisional registration. This would fix the law on this subject. Inventors and others, for whom I am acting, are very desirous to know whether it is the law or not, that they are to have an opportunity, within the twelve months after provisional registration, of making their specifications more perfect than those they have lodged; that is a point which the last Designs Act at present has left completely open; and unless your Lordships fill it up by some provision in this Act, the uncertainty will give rise to some difficulty. What I propose is, that an inventor, having provisionally registered, and having lodged his petition and a fresh specification of his invention (there would be of course the means of comparing that new specification with the one which he had deposited previously, in order to get the provisional registration), and if it be found to be substantially the same, he should get his letters patent upon that petition of the date of the provisional registration. I have taken the liberty of carrying out that object in the language of the first clause which I have submitted to your Lordships. There is another subject not before your Lordships in this Bill, and that is, giving to inventors the benefit of an alteration in the partnership law, by limiting the liability of partners. There is no law that so much wants an alteration as that of partnership. I know six or eight inventors who are struggling with great difficulties for want of that alteration. Parties are sufficiently enamoured of the inventions to be willing to advance money, and to go into them, and take shares, which would benefit the inventors most essentially; but if they do so under the present partnership law, their whole properties become involved, and that makes them turn their backs on the inventions, however promising and seductive.

The Witness is directed to withdraw.

W. Spence, Esq.

WILLIAM SPENCE, Esquire, is called in, and examined.

839. YOU are a patent agent?

I am.

840. You gave evidence before the Privy Seal Commission?

I did.

841. Do you adhere generally to the evidence you then gave?

Generally, I do; I feel, however, more strongly than I did then on the point of the necessity of having one British patent for the United Kingdom, but I scarcely said anything about it at that time.

842. Will you state the reasons which lead you to that conclusion?

My reason is, mainly, a patent agent's reason, namely, that he would then have but one list to keep, all patents granted being patents for the United Kingdom; but at present he does not know whether there is or is not a Scotch patent, or an Irish patent, for the same object.

843. In your evidence before the Privy Seal Commission, you stated that you thought it would be advisable that the Attorney-general should have a scientific adviser to assist him in the previous examination before passing a patent; what is your opinion of the plan which has been proposed to the Committee, and which

which has been published in various ways, of obliging the Attorney-general to give a patent upon all specifications entered, at the risk of the parties themselves, of their rights being held to be good as against conflicting patentees in the courts of law?

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I think it is most important that there should be no question as to the utility or novelty of an invention settled by the Attorney-general, but that it should be left to the patentee's own risk.

844. What is the object, then, of a scientific adviser?

The question before the Attorney-general always is, whether there is any impropriety in granting a patent to the applicant, or whether any body else is entitled to it; I do not understand the report as applying in any degree to the character of the invention, except of its distinction from the invention described to the Attorney-general by the opposing party.

845. Do you agree with those who think that the Attorney-general should not institute any inquiry as to whether the person applying for a patent is the true inventor or not?

I think he ought to institute such an inquiry, and that he ought to be strengthened in his means of doing so efficiently.

846. What do you think would be the objection to this course, that every body should be allowed to take out a patent?

That a person who was not the true inventor might get a patent right; and it is most important, I should say, knowing the character of patentees, to prevent that; of course there is a difference between patentees, but the large class of patentees are men who require a good deal of checking.

847. There is a good deal of piracy?

Yes.

848. Supposing a system of this sort, that every body applying for a patent were entitled to take out a patent, of course the owners of those patents that were taken out could only avail themselves of the patents, supposing that they were the first patentees of the discovery; but instead of the Attorney-general investigating that question, he should be obliged in all cases to grant him the patents, and afterwards the parties should run the risk of having the question of priority tried in a court of law?

The question of priority remains, under the present system, to be tried in a court of law, and it is important that it should so remain.

849. But, supposing every body who applied was entitled to a patent, and that the Attorney-general had nothing to do with investigating the patent, the protection to the first inventor would be a protection to be enforced in a court of law; do you see any particular objection to such a system as that?

It would give rise to a great deal of litigation, because it would give persons who acted *bonâ fide* and persons who acted *malâ fide* the same advantage.

850. How would they have the same advantage?

In that case, suppose a man got possession of an invention fraudulently, there would be nothing to prevent his going to the Attorney-general and getting an alleged legal right, just as if the invention were his own.

851. But would it do him any good, provided the real inventor had gone there and got his patent?

The difficulty would be that the real inventor has to fight the question in a court of law, instead of taking this far less expensive course of going before the Attorney-general; it would be a great evil driving a party into a court of law instead of his having the benefit of this preliminary inquiry.

852. You think it better that the contest should take place before the Attorney-general?

Yes; upon that point I see great value in the existing system, and with that portion of it these Bills do not interfere.

853. You think that it would increase the means that parties pirating inventions would have of worrying and extorting money from the true inventors?

That is my objection to granting a patent without the means of inquiry as to the right of the applicant.

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854. Are there any particular remarks which you wish to make upon these two Bills ?

I have made some remarks upon the first Bill, Lord Brougham's Bill ; I have noted, first, the objections, and then the advantages, as they have struck me ; in the first place, it appears to me, that the proposed Commission is unnecessarily large for the purpose of granting patents, and that there is too much likelihood of the rules becoming inconveniently numerous and stringent for the easy administration of patents. At present the Attorney and Solicitor-general virtually authorize the granting of English patents ; the Lord Advocate Scotch patents, and the Irish Attorney-general Irish patents. I have made this remark : " Why might not these officials, retaining their jurisdiction, be empowered to appoint persons to assist them in the discharge of their functions, so that their reports might become of more authority than they have hitherto been ? " The hearings have been, in too many instances, merely formal, rather than real, because the Attorney or Solicitor-general has not had the opportunity of going into the merits of the inquiry before him. Then the second objection that struck me was, that patents had better date from the report than from the petition ; but I do not see the necessity for the petition. I look upon the Attorney-general as virtually granting the patent ; for this reason, let him be applied to at once.

855. You see no object in its going to the Home Office ?
 No.

856. If that is retained, you think that the description ought to go to the Attorney-general, and not to the Home Office ?

Yes ; but I look at anything being placed, before the depositing of the description, with the Attorney-general as in the way, as interrupting ; I do not see anything in it beyond formality. Then the third objection is, that the report should not contain a statement of the invention, as it is not a report upon the sufficiency of the statement, but a report stating that there is no apparent reason why the applicant should be refused the grant of a patent. That I feel strongly upon, as it strikes me that Clause 5 of this Bill introduces altogether a new principle from what we have been accustomed to, viz., the report of the Attorney-general, containing a statement of the invention, and thereby virtually passing judgment upon the patentee's statement of his invention.

857. What do you feel to be the objection to that ?

It seems to suppose him to be in a position to go into the whole case of the sufficiency of the description. I do not think he is in such a position in the ordinary state of patents. Looking to patents in the gross, I do not think a patentee is in a position to make a complete specification at that time ; and on the same principle I think the Attorney-general could not go into the case in the way of giving a report upon the sufficiency of the statement.

858. Have you had any experience of the working of the Extension of Designs Act of this year ?

I have not.

859. Are you aware that, under that Act, certain persons have been appointed by the Attorney-general to examine into the sufficiency of descriptions ?

I am ; but I have had no experience of it. I next object to making patents void, if sums of money are not paid at the end of three and seven years ; because it has this evil attending it, that it is difficult to ascertain which patents are in force, and which have lapsed ; why not, instead of this, require the payment for a 14 years' patent within a certain term, say three months.

860. But if that were not paid in a certain time, what would happen ?
 The patent would be void.

861. Then it would be subject to the same objection as you have stated ?

I would make it a shorter time ; certainly not beyond the term of the specification.

862. Is it not the case that there are a great number of patents existing which are of no use to the inventor or the public ?

Yes.

863. Is

863. Is it not an object to get rid of them?

Yes.

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864. Would not the system of periodical payments tend to diminish the number of these?

Yes; and that is so far an argument in its favour. It is exceedingly inconvenient for manufacturers and persons in trade, and also for persons who act as patent agents, not to be certain, from the date of a patent, whether it had expired or was still in force.

865. Would not it be possible to organize such a system of registration of patents, and of patents that have expired?

It makes more facts to be taken into account in every contest; that is my objection to it.

866. Your objection would not be so strong, provided the registration of patents were more perfect, and the facility of obtaining information were greater?

No, it would not.

867. What is the next point?

My notion is this, that we require two sorts of patent, a short patent and a long patent. I have all along thought that the Legislature had a good object in view, as I stated in my former evidence, in the Utility Designs Act, but I can only recognize in that an intention in the right direction, and not a purpose carried into effect; and conversations that I have had with manufacturers, principally in Birmingham, in small trades, have satisfied me, beyond a doubt, that there is a class of small manufactures in which it is possible to conceive that patents may be established and worked out, and become remunerative, in the space of three years. Now, I think it would be desirable to protect such inventions, by granting patents for a term of three years, at a cost of 10*l.*, that being the amount and term of years already fixed upon by the Legislature in the case of designs for articles of utility, which the proposed small patents are intended to supersede.

868. Would not that object be accomplished by periodical payments?

It is not quite the same; the payment is 20*l.* instead of 10*l.*

869. Then it is not an objection in principle, but to the amount of the fee charged in the Schedule of the Bill?

The provision in the Bill does not get rid of the whole difficulty; the difficulty remains about the necessity of another fact in the case. I should know, in the case I am submitting, whether there was a three years' patent or a 14 years' patent; that would be stated in my list relative to each patent, and that small payments should be unrenovable; you have it, as proposed in these Bills, renewable. I feel quite assured that, as far as that part of the Bill goes, it will be a boon in itself; but I prefer the system which I have spoken of, and which I have thought of for some years.

870. There will be a greater facility given to the inventor under the proposed No. 2 Bill, inasmuch as he will know, towards the expiration of the period, whether the patent is likely to be worth the larger sum that he will have to pay; whereas, in the first instance, he would debar himself from any further protection by paying a smaller sum?

Yes; at present we only know one term of years for a patent; but I do not see that it need be so.

871. According to your view, you would have patents for a short term of years unrenovable?

Yes, so that they may not interfere with another class of inventions; I am not favourable to giving low-priced patents for 14 years.

872. What would be the objection to that?

It would multiply patents inconveniently; it is an evil to multiply inventions faster than they can be taken up and perfected in the trade to which they relate.

873. Would that be the only evil?

I think we should have crude inventions thrust upon society, and persons

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would not devote their studies and energies to the perfecting of inventions having a real novelty of principle in them, and containing the germs of large works.

874. Do you refer to the schedule of charges, as being of too low a description? My notion is, that 100 *l.* may very well be charged for a patent.

875. Are there any other points that you have to suggest?

Those are the objections that struck me. Then I have noted the advantages. The first is the recognition of the necessity for strengthening the Attorney and Solicitor-general's official staff, so as to make the reports of more importance. The next is the patents bearing an early date; very important points turn upon that: the patent being of the date of the seal has been the source of numerous evils.

876. It has been stated to the Committee in evidence, that it would be desirable that the Attorney-general should date all patents the specifications of which have been completed from the date of the petition, but that the patentee should have the right of introducing an amended specification; and if the specification were amended, and there was any considerable alteration of the first specification contained in the second specification, the Attorney-general should have the power of dating the patent from the date of the second specification. How do you think an arrangement of that kind would work?

That is quite a new idea to me; I have never thought of it till this moment; but I think there would be an advantage in it. I think that every thing that tends to call into existence perfect inventions, as distinguished from crude inventions, is a good thing. The great evil of multiplying patents too quickly is, that there is a want of a prospect of remuneration to men of science to perfect such inventions as the hot-blast, and those important inventions.

877. You think that giving great facility, at a small cost, to obtaining patents would ultimately have the same effect as giving no patents at all?

Yes.

878. And with increased injury to the public?

Yes; that might, however, cure itself after a time; but it would take time. I think that the interests of the public and of inventors are mutual, and that it is best for both that patents should be kept within certain limits.

879. The existence of a useless patent is an inconvenient obstruction to the public?

Yes. There is an unquestionable advantage in the early date of the patent; that is the greatest question in the whole case.

880. Do you think that that ought to be left to the discretion of the Attorney-general, or that it should be compulsory?

I think it should be left to the discretion of the Attorney-general, so as to be secured against the evil of granting patents wrongfully, and encouraging fraud indirectly.

881. What is the next advantage which you would suggest?

The specifications being collected in one office, and suitably indexed; that is very important. We have great difficulty at present in making searches, so as to be able to advise clients upon the point of novelty, and, of course, in the case of every patent of importance, a wise patentee always goes into that question.

882. Supposing there were a difficulty in collecting all the specifications into one office, would the object be secured by having a perfect index, so that you might know where a specification was to be found?

That would be the same thing, practically, as bringing all the specifications into one office.

883. Do you see any difficulty in making indices which would not mislead the public?

I can hardly conceive of a perfect index being made, having given a great deal of attention for some years to making up my own index. Every patent agent must himself make the first classification of patents, as a key to the ultimate index for ready use, if he is desirous of having a perfect index. I cannot help thinking, however, that what I mean by a perfect index is perhaps impossible

impossible of attainment. It is probable no person could produce an index that would be more than an approximation to that. Classifying patents is a very difficult matter, so as to be sure of not letting any patent slip through; and in order to prevent the risk of that, it is common to place one patent under several heads; and all the usual points must be carefully observed which have to be observed in making indices perfect, and in cataloguing subjects.

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884. Can you state the nature of the evils that arise under the present system from postponing the date of the patent?

The evils are many; it gives rise to all sorts of manœuvres, and to what we understand by racing. I can conceive various kinds of plans of action being resorted to that were not contemplated at the commencement of the patent, when a man finds another man coming forward whom he is desirous of supplanting.

885. In fact, one man might be delayed by a caveat, while another man was going on with his patent?

Yes.

886. In short, the present system gives advantages to a cunning inventor, but is injurious to the body of inventors?

Yes; and it gives advantage to an unscrupulous patent agent over a scrupulous one; it is an unpleasant sort of competition. There are many points connected with that sort of strife which I should feel too degrading to be connected with; and yet it is very awkward to feel that your client's interest is suffering; but I think the early date of the patent cuts at the root of all that evil. We have contended for that improvement for years past.

887. Will you state any other advantages in the Bill?

The copies of specifications to be open to public inspection I look at as an advantage, to which might be added the means of taking or procuring, at a small cost, partial copies of the specifications, not however to be used as evidence, without the consent of the opposing party. At present you must have the whole office copy, and you are not allowed to take an extract, except at the Rolls Chapel Office. I do not know any reason, beyond the necessary preservation of public documents, for excluding parties from obtaining accurate copies of the claims of specifications in the very words. We often want the very words of the claim or statement of the essence of the invention, and sometimes that, and that only, is what we require.

888. Would that be a proper matter for rules to be issued upon by the Commission?

I should think it would; it may be called a question of detail; but it appears as a clause of the Bill, and that is the reason that I took it in that form. There is another advantage, greater particularity as to objections to patents in actions for infringement and *scire facias* trials. There is one clause which lays stress upon the particularity of objections to patents.

889. That you think would be advantageous?

Yes; I do not know how it is proposed to be carried out; but anything that would tend to bring the rights of patentees, and of the parties opposing them, clearly before a court of law, divested of legal technicalities as much as possible, and also secure the patentee against the chance of surprise by evidence that he could not calculate upon, I cannot help thinking would be a great advantage; and the clause which follows it has a tendency to secure that, in requiring the taxation of costs to be regulated by it. Those are all the observations I have to make upon that Bill.

890. Will you give your opinion upon the No. 2 Bill?

The proposed Commission is larger than necessary, and therefore, in my mind, suggestive of apprehension of a multiplicity of inconvenient rules.

891. Do you think it more likely that there should be a multiplicity of rules from the Commission embracing several high functionaries?

My fear is, lest the administration of patents should be reduced to a mechanism to too great an extent. In the Designs Office we have been exposed to great trouble from the multiplicity of rules; it does not strike me that a large number of rules are necessary for granting patents; the great point that strikes

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me is having the right men in power to administer the law, which must be administered with some degree of elasticity, according to varying circumstances.

892. Do you wish the law officers to make their own rules?

Certainly; but I am desirous that they should have efficient assistance in the scientific department of their work.

893. Would it not be more convenient that applicants should know tolerably well what the course of proceeding is?

Yes, within some limits. I conceive that the question, whether this Commission will work well or ill, depends greatly upon the manner in which it is carried out; it is possible that my apprehensions, which arise from experience relative to designs, may be without foundation in this case. We have had a great deal of trouble in the case of designs; I am not speaking of the ornamental designs, but of the non-ornamental designs; but that difficulty may arise from a principle being acted upon in those proceedings which is not proposed to be acted upon here, and that is in interfering with the form of the specifications; we are obliged to keep to certain forms.

894. At present, under the patent law, there is no particular form required?

No, and I think it desirable to keep it so; the only essential matter in the granting of patents is to see that there is no fraud encouraged.

895. If there were simple rules laid down for the form of the specification, would it not be possible for the inventor, in the case of a simple invention, to make out his own specification, instead of going to the expense of applying to a professional man to draw up the specification?

I should doubt it; because I do not think you can reduce patents to a form that an unprofessional person can enter into and thoroughly understand, so as to be safe in drawing up his own specification. Practically, we have no form of specification; we have nothing but five or six folios of preamble, which the patent agent does not trouble himself to write out; the copying clerk does all that. Then, as to the body of the specification, which is, in fact, the real specification, there is no restriction of form.

896. Would not the rule be useful which dispensed with the six folios of preamble?

It is not very material; the preamble is not much more than a conventional form of reciting the grant of the patent. There are objections to the date proposed in this Bill; I should say that it had better be the date of the report than of the petition; that I have already mentioned in reference to the other Bill, and also as to a statement of the invention accompanying the report. Then, I feel an objection to granting patents for Scotland and Ireland separately; I do not see why the United Kingdom should be considered as composed of distinct parts with reference to patents.

897. You are speaking rather against your own interest as a patent agent in giving that opinion, are you not?

It is possible I am; I hope, however, to leave that altogether out of consideration; I feel it a public duty to do so; I cannot help regarding patents as involving large social questions. Then, I feel a great objection to the complication of the question of publication, by making the use of the invention abroad detrimental to British patents; I do not know the object with which that was introduced, but it strikes me as exceedingly prejudicial.

898. Do you think it proper that the mere importer of a foreign invention should receive the same protection and reward as an inventor in this country?

I do not see any objection to that. I think the object of granting a patent, at least as far as it is remunerative, is to remunerate the person for introducing an improvement in manufacture; and a person who brings an invention from abroad, and introduces it here, should, I think, be regarded by the law in the same light as a person who invents it.

899. Do not you think that any invention introduced abroad would, with the constant communication that is now taking place, speedily find its way into this country?

Yes.

900. Is

900. Is not the public interested in no obstruction being offered to those who use such inventions?

I think that public benefit arises in giving to parties a prospect of remuneration for introducing any improvements.

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901. That might be an object of importance in the time of James the First, when very few people went to different countries, and travelling was very expensive and difficult; but at the present moment the constant communication that takes place with Europe and the United States, from whence the great mass of inventions comes, alters that state of things?

It would probably alter it in one sense; but still I think that persons must have an inducement for all they do in introducing improvements, and that there must be some prospect of remuneration held out.

902. Would not that inducement operate upon manufacturers in the different branches, and lead them to bring over inventions which were found very useful by manufacturers in other countries?

Yes; I can understand our international communications having become so greatly extended, that it would tend in that direction; but that is not the whole of my objection to this clause; it seems to me to complicate the question of publication as against the novelty of an invention; it is difficult to say what is publication so as to include all cases; the question of publication raises many questions.

903. Is it an object to reward the importers of old inventions?

I conceive so; I think many inventions have failed because they were before their day; the circumstances by which they were surrounded were not favourable to the development of the invention.

904. If the invention has been discovered before in the United Kingdom, a patent cannot be taken out for it?

No; but you must put some limit upon that. I remember that in the case of the Househill Company, in pronouncing an opinion as to what would have been the effect of user upon the patent, Lord Lyndhurst observed, that if it had been in use 50 years ago, and had gone out of use, it might have been a question whether that would affect the patent.

905. What is the next point?

I come next to the clause which relates to the provisional specification; I do not see the use of the provisional specification as distinguished from the ordinary deposit required by the Attorney-general, nor the provisional protection as distinguished from the proposed virtual protection, conditional upon complying with certain requirements.

906. Is it not desirable that the poor inventor should have the means of ready access to the capitalist, to assist him in carrying out his patent?

I think that this Bill gives him that, without this provision; it struck me on reading the Bill that there was no room for this, inasmuch as it was provided for already; that is my only objection to it; I think the poor inventor should be placed in that position, but I think that he is placed in that position by the other clauses of the Bill.

907. But at a greater expense?

He gets the date of his patent, and a certificate from the Attorney-general that he has entered his deposit; and if he were allowed a copy of that deposit, he could show what his position was to the capitalist, instead of beginning a patent in another form. It appears to me that the proposed clause might in practice let in some difficulties from the introduction of different modes of commencing proceedings. I made this suggestion to the Attorney-general when he sent out his order: "I can see very good reasons why the deposit should be kept secret from the public until the enrolment of the specification; but I do not see why the patentee should not have the means of obtaining an authorized copy of his own deposit, so as in case of need to use it for any purpose requiring evidence of a protected invention." It appears to me that if you could make the authorized copy of the deposit virtually a protection, it would be better than having a distinct sort of patent, because it gives rise to the necessity of ascertaining in each case what kind of patent we have to deal with. We are open to

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deceit as to registrations, by their being called patents, though they are not patents ; and I have often seen registered articles advertised as patented articles. All I have said with respect to the payments refers equally to the two Bills ; the advantages are pretty much the same, except that I think the provision as to the particularity of objections to patents, which I look upon as very important, is contained in Lord Brougham's Bill, and not in the other. Both these Bills fall short of the measure of reform which I should like to see introduced in the means of defending patents after the grants are secured. At present, much difficulty and expense are occasioned by the separate jurisdictions from which different forms of trial issue ; namely, actions for infringement, trials by *scire facias*, and injunctions, confirmation and elongation of patents. It would simplify proceedings very much if all patent matters were tried in one Court (say the Court of Exchequer), the Judges in this Court being empowered to grant injunctions, and an appeal to lie from this Court to the Privy Council.

908. Is there any other remark you wish to make ?
 I am not aware of any.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till To-morrow,
 One o'clock.

Die Veneris, 16^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

Mr. John Fairrie.

16th May 1851.

Mr. JOHN FAIRRIE is called in, and examined as follows :

909. WILL you be so good as to state to the Committee what your occupation is?

I am a sugar-refiner.

910. On a large scale ?

I believe on as large as any individual in Britain, at present.

911. Is it the interest of the sugar-refiners generally which you represent to-day ?

I had a consultation yesterday with Mr. Macfie, and Mr. John Davis, another principal sugar-refiner in London, and it was agreed that I should be requested to appear before the Committee.

912. Have you had an opportunity of considering the two Bills which are before this Select Committee ?

No, I have not ; I only saw them yesterday ; my attention was called only to a single clause.

913. That clause is with respect to the exclusion of the colonies, is not it ?

Yes.

914. Will you be so good as to state what your opinion of that clause is ?

If a patent is taken out for sugar-refining, and a large sum is charged under it to the sugar-refiners of Great Britain, which the sugar-refiners of the West Indies are free from, it amounts of course to a tax upon us. It does not appear to me to be a matter of so much interest to sugar-refiners as to patentees, because a patent, if it does not extend to the colonies, becomes of much less value in Great Britain. If the colonies are allowed to use it free of expense, of course it diminishes the value of the patent so much.

915. Is not it a hardship upon the colonies to be obliged to pay for an expensive machine when they can get a similar one very cheap ?

I think they, as British subjects, should be subject to the same expenses as others are. A sugar-refiner in the West Indies should be put, I think, under the same regulations as we are placed under at home. We might, in some cases, get machines made in Belgium very cheaply, free from the patent right, if we were allowed to do so.

916. Do you think that the present system has been useful in promoting inventions of the kind adapted for your trade ?

I can hardly say that I have made up my mind on a subject so extensive as that, but I rather think it has not worked very well, and I do not think the system which I understand to be intended is likely to work any better ; in fact, it would be worse, I think. A man gets hold of an idea ; he runs immediately to the Patent Office before he has made any attempt to perfect his process ; he gets a protection for six months, and he goes about examining every publication connected with the particular subject he is engaged on, and getting all the information he can ; and when the time for delivering in his specification

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comes,

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comes, he has entirely altered the original view which he entertained ; I know that to be so from experience. I was at the expense of a patent within the last six months, and the original idea with which the inventor started was entirely abandoned before the patent was taken out. He experimented with me during the whole of the six months, and laid himself out for obtaining information on all subjects connected with it. He put into his patent every thing he could find, and, among other things, discoveries which he had no right to claim at all. The correct principle would be, as it appears to me, that before a patent is taken out at all, the whole of the process should be described as it is intended to be worked.

917. Does not it sometimes happen, that a very valuable principle suggests itself to a man, and yet it is very difficult for him to work it out to a satisfactory conclusion, without an almost public exhibition of it, and confiding the secret to a great many workmen ?

That is so to a certain extent ; there is a difficulty, no doubt, in that respect.

918. You would only allow mature inventions to be patented ?

The exact principle should be stated on which the man intends to proceed in his invention. He should not be allowed to take out a patent when he has made no discovery at all, but means to look about him in the meantime ; or he has heard of some man who is trying some particular process, and he runs and takes out a patent, with the view of cutting out the very individual who perhaps is the real discoverer. It appears to me, that making the cost of patents so very small, instead of doing any good, will do harm ; there will be such a number of patents on every trifling subject, that manufacturers will be prevented making any alteration or progress whatever. If patents could have been obtained at 20*l.*, I might have taken out 50 patents ; for a great many of the adaptations in use at present originated with me many years ago. I never thought, under the existing system, of taking out a patent ; but if they could have been got for 10*l.* or 20*l.*, I should have tied up half the present arrangements now in use in sugar-refineries.

919. Which would have been an obstruction to others in the same trade ?

It would.

920. You consider that the existence of a patent operates, in fact, as an obstruction to the further progress of improvements, except in the hands of the patentee ?

Very considerably ; for instance, I know of a process which is in use at the present moment ; I see improvements which I could make upon it ; but I cannot make those improvements, because the original patentee says, " No, I shall not allow you to touch this thing at all."

921. Do not you think the increased periodical sum payable on the renewal of patents would be a very great inducement to people to abandon them when the time of payment arrived ?

By the proposed law there is to be a certain charge for three years ; I think that is an improvement undoubtedly.

922. By that means do not you think that a patentee would get an ample reward during the short time that he was protected, and yet the public would not be seriously damaged, as, after a brief period, they would obtain possession of the patent ?

Yes, I think that is the case.

923. With that protection and guard, do you think the injury which you have pointed out, of making patents so cheap and easy to be obtained, would be so great ?

It would not be so great, in my opinion.

924. Do not you think, from your experience, that the improvements which are going on in your own processes, and in processes with which you are acquainted, are effected more by a continual series of small steps than by occasional great advances ?

Undoubtedly.

925. Do not you think that if all those small steps were clothed with patent rights,

rights, the effect would be rather to obstruct that continued daily course of improvement than to forward it? Mr. John Fairrie.

I think so.

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926. Do you think the evil likely to arise, and which within your experience has arisen, in that form is sufficient to overbalance the good to be obtained from granting patent rights to great and valuable inventions?

I think it is, in a very great measure.

927. Then, according to your opinion, patents are injurious altogether?

My opinion is rather on that side than the other. I have conversed with a very ingenious man to-day, who takes a very opposite view; he says, "I have inventions in my head; if I were not allowed to patent them, I should not discover one of them." I said, "That is not wise of you; you can go and try what you can get for them; there are always men who are willing to pay large sums for improvements."

928. There are two classes of improvements; is not there a class such as you would naturally introduce into your processes from time to time, comprising small improvements at a small cost; and another class which it is supposed requires the lengthened attention of the person specially applying his mind to the subject?

Undoubtedly; in our business there have been only two very important discoveries within my experience within the extent of 40 years; the first was Howard's patent, which was for boiling sugar *in vacuo*. He got hold of the idea, and by the assistance of Boulton and Watt he perfected, as he conceived, that idea; when it came to be tried, however, it was an entire failure; the plan would not work at all: it was a suggestion by a German workman which at last enabled that patent to be worked, which ultimately produced 40,000 *l.* or 50,000 *l.* a year. The original plan was entirely a mistake; it was the slight improvement of a German workman which brought the thing to perfection.

929. Was that improvement patented?

No, it was not patented.

930. The application of that principle was, in fact, new?

It was new.

931. The improvements with which you are specially conversant, I apprehend, are improvements depending upon chemical processes and chemical discoveries rather than upon the direct adaptation of mechanical means?

Mechanical means in a considerable degree. The only other great improvement which has taken place is the use of charcoal in a particular way; the charcoal is used in small grains, like gunpowder, through which the sugar is filtered; that has had the effect of reducing the price of fine sugar 20 *s.* a hundred weight.

932. In the case of mechanical improvements, is not it very difficult to specify what is the invention contained in each of them; is not it generally the mere application and more dexterous manipulation of wheels to regulate, direct and control forces previously known?

I can hardly give an answer to that question without consideration.

933. In a general way, do you think it difficult to define what is or what ought to be considered a discovery?

In a great many cases it is very difficult indeed.

934. In most cases is not it the application in a new manner of discoveries previously made?

It is; I can give you an illustration of that. People took out a patent for a machine called the centrifugal machine, to be used for drying cloth; a gentleman in Liverpool said this would be applicable to sugar-refining; he went and took out a patent for that, though he had made no discovery, simply because the idea occurred to him, and without ever having tried it; and so had the means of excluding all the world from using it, though it was not his own invention at all.

935. Do you think that a person should be equally protected by a patent who
(77.6.) T 2 merely

Mr. John Fairrie. merely applies already made discoveries in a novel way, and is not himself the discoverer of the original principle?

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Certainly not; I think the cases quite distinct.

936. When you state that you agree in the principle, is that with reference to the supposed rights of inventors, or is it with reference to the supposed tendency of patent regulations to promote the public interest?

Both, I think.

937. Do not you think that it is as important for the public interests to promote a more skilful management, or manipulation of known powers and known principles, as it is to encourage the invention of further principles?

Certainly it is. I have mentioned another great discovery in sugar-refining, the use of this grained animal charcoal, which has the curious property of removing all colour from the sugar. The power of animal charcoal was a known principle for many years. It occurred to me that the proper way of using it was to use it in grains. I tried it, but it never occurred to me that it should be patented, because it was only an application of a known power. To my surprise I found I was forestalled; that a patent had been taken out, though I had known the principle, and applied it two years before.

938. Could not you go on employing the process without paying anything for it?

No, I was prevented.

939. That was owing to your unwillingness to go into a court of law?

I went into a court of law. The opinion of the Judge was, that I was quite in the right; but the opinion of the jury was, that I was wrong. I saw this plainly, that if a patentee comes before a jury, the jury will always give it against the public, and in favour of the patentee; that was plain in this case. The Judge directed the jury that my opponent had no case at all; the jury, in the face of that direction, gave a verdict for the patentee.

940. It has been stated to the Committee that patents operate as a great encouragement to inventors and to invention; is not it your opinion that in the event of there being no patent to protect an inventor, he might still count, in most cases of useful inventions, upon remuneration for the communication of his improvement to the trade?

I think so, to a very large extent, if the invention is important. He might not get so large an advantage, but he would get a considerable one. No man could get 40,000 *l.* or 50,000 *l.* a year, which Mr. Howard did; but he might get a certain amount of remuneration.

941. Its value in the market would be sufficient to operate as an encouragement to invention?

Yes.

942. In Mr. Howard's case, you consider that it was not the true inventor who obtained the reward, do not you?

He was the inventor.

943. You stated that the really useful idea accidentally suggested itself to a German boiler?

That was the case; the invention was put into the hands of a sugar-refiner, a Mr. Hodgson, who, in attempting to carry it out, was said to have spent his whole fortune. Before this mode was discovered, it was said that he lost 40,000 *l.* in attempting to carry out Mr. Howard's idea; when just at the last moment this person made incidentally a discovery of the way of applying it.

944. Do you make many improvements in your works and processes without seeking the protection of a patent?

A great many, in small adaptations.

945. That is a fact of frequent occurrence?

Yes, constant occurrence.

946. Do you know, of your own knowledge, that the same fact is of frequent occurrence in other cases?

I do

I do not know ; but I should think, from my experience in my own particular business, that it must be so. *Mr. John Fairrie.*

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947. In those cases, what is the reason that you do not protect yourself by a patent?

They are small matters. If a patent were to be got for 10*l.* or 15 *l.* or 20 *l.*, I very likely should have taken out many patents; but when the expense comes to be 200 *l.* or 250 *l.*, it makes a great difference.

948. Had you possessed a facility for taking out patents on account of their cheapness, do you or not think that those patents in your possession would have been obstructions to the processes of other people?

I think so, certainly.

949. Do you think that the want of power to take out patents in your case, in consequence of the cost of them, has in any degree tended to check the application of your ingenuity to the discovery of further improvements?

Not in the least.

950. All patents involve the principle of a monopoly?

Yes, and on that account the inclination of my mind is, that it would be better to have no patents at all; the progress of improvement, I believe, would be as rapid, or even more rapid, if it were not obstructed at every turn by patents.

951. You do not imagine that it is the protection held out by the patent laws which induces active minds to apply themselves to make discoveries?

I do not think so.

952. You believe that the same energy of mind would be displayed, and the same anxiety to make new discoveries felt, whether there were this hope of protection or not?

I think so; in the case of manufacturers, certainly. I think the great bulk of improvements proceed from the manufacturers themselves, and not from mere inventors.

953. You imagine that the advantage derived from a discovery, in the increased facilities for the manufacture, is quite sufficient to operate upon the minds of parties, and lead them to introduce every possible improvement?

I think so. Of the patents which have been taken out in sugar-refining, though they have amounted to hundreds within my recollection, there have only been two or three which have been of any value whatever; and those which have been of value have been made so from the application of the experience and knowledge of manufacturers themselves—men who have been practical men, not inventors, who devote their attention to catching improvements from every quarter.

954. Is there any other point connected with this subject on which you wish to make any remark?

No; but I may repeat, the clause to which I have referred respecting the colonies appears to me to be an unfair clause; it is unfair to give one class of Her Majesty's subjects advantage over another class.

955. You mean the advantage of using in the colonies that which cannot be used upon the same terms in this country?

Yes.

956. A patentee may now take out a patent for England alone?

Yes.

957. Is not that frequently done?

Yes.

958. Is not an Englishman, whose trade is affected by that patent, placed exactly in the same position of disadvantage, compared to an Irishman and a Scotchman, as he would be by that provision in this Bill with regard to the colonies?

No doubt. What I mean is this, that there may be an invention which has very little relation to Ireland. For instance, in the case of sugar-refining, people would hardly think of taking out patents for Ireland in that manufacture, because no such trade has ever been carried on there to any extent.

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959. You mean that a patent for sugar-refining, taken out for England and Scotland, is practically the same in its results as if it were taken out for the United Kingdom?

Yes; there may be other matters which are similarly circumstanced.

960. Is there much sugar-refining now carried on in the West Indies?
 To a very small extent.

961. Do you think that the introduction of such a provision as you have referred to might lead to sugar-refineries being established in the West Indies?

The tendency is to enable the West Indians to refine sugar, having an advantage over us in being taxed to a smaller extent.

962. Are any of the processes now used by you patented, or have the patents expired?

In all cases I think they have expired, except in one case, which has been recently introduced—the use of the centrifugal machine in refining sugar.

963. Practically, at this moment, the clause in question would not give the West Indians any great advantage?

In this case 6*d.* a hundredweight is charged for the use of this machine; but the West Indians would get the use of it free.

964. That is the only instance you can refer to?

That is the only instance which occurs to me at present.

965. Is it within your experience that the effect of the existing patent law is seriously to restrict the use of a patented article, or is it merely to leave the use of it free to the public, but at a higher cost than they would otherwise have to pay?

It is the latter.

966. You think that it does not generally restrict to any extent the actual use of the article?

That depends upon various circumstances; it depends upon the charges which may be made for the use of the patent.

967. So far as your experience and observation go, can you tell the Committee whether the expiry of patent rights is usually marked by any important change either as to the price or as to the extent of use of the article patented?

A very great change. In the case of Howard's patent, who charged 1*s.* a hundredweight previously to the patent expiring, not above one-fourth of the refiners of London used the process: as soon as the patent expired, it was almost universally adopted.

968. That might be the result in a very peculiar case, such as that to which you have alluded, without being the general character of the results; what is your opinion of the general character of the results?

It depends altogether upon the amount of the charge which is made. If the patentee charges a very small sum, the existence of the patent, of course, will have very little effect; but if the charge amounts to 6*d.* or 1*s.* a hundredweight, as it does in many cases, it is otherwise. Mr. Howard attempted, originally, to begin with 4*s.* a hundredweight.

969. Does not it depend also upon whether the patentee is a manufacturer?

It does, of course.

970. In which case, he would be interested in making the amount of protection upon the invention high, in order to have the monopoly of supplying the machines?

Yes.

971. There is a clause in the Bill denying protection to importers of inventions; do you approve of that clause?

Certainly; I think it is altogether ridiculous to allow a man who merely finds out that a particular plan of working is carried on across the water, to exclude every body in this country from using that invention.

972. On the other hand, it is stated that it is a disadvantage to the inventor here that he should be precluded from protection when his article is not generally known, because it may have been in use in some distant part of the world?

If

If it were brought from Persia, for example, it might be an important thing ; but if it were brought from France, the merit would be trifling. *Mr. John Fairrie.*

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973. The greater number of the inventions which are imported into this country come from Europe and the United States ?

Almost all of them.

974. You do not think, according to your experience, that there is any tardiness as to the importation of foreign inventions into this country which requires to be stimulated by granting patent rights ?

I think not.

The Witness is directed to withdraw.

Mr. ROBERT ANDREW MACFIE is called in, and examined
as follows :

Mr. R. A. Macfie.

975. IN what occupation are you ?

I am a sugar-refiner at Liverpool, as well as in Scotland.

976. Have you heard a considerable portion of the evidence of the last witness ?

I entered the room during the course of his examination.

977. Did you concur in that portion of the examination which you heard ?

Entirely ; except that I think Mr. Fairrie did not appear to know that there is one sugar-house and two molasses refineries, or boiling-houses, in Ireland.

978. Do the patents which affect sugar-refineries generally extend to Ireland now, or have they been taken out for England alone ?

Owing to the very awkward state of the law, requiring you to take out a patent for each of the three kingdoms, they are universally taken out for England, generally for Scotland, but rarely for Ireland. The reason why sugar patents are rarely taken out for Ireland is, that Ireland is a most expensive country, and till very recently there were no sugar-houses or refineries of molasses in Ireland.

979. By an expensive country, you mean that the expense of a patent is great for Ireland ?

Yes.

980. Do the English refiners consider it a grievance that Irish refiners should be exempted from the operation of a patent ?

That is my opinion. We—that is, the firm I am connected with—have a sugar-house working in Greenock to a considerable extent, for the market of the North of Ireland. We have a sugar-house in Liverpool, working bastards, I may say chiefly for Ireland. It would be very awkward, in the case of an important patent, if we were liable to pay the patent charges, while our rivals on the other side of St. George's Channel are exempt. The house I refer to, which is working chiefly for Ireland, is working molasses. There are two molasses-houses in Dublin, the very market to which most of our bastard sugars are to go. Very high rates have generally been charged by the discoverers of important improvements. In the case of Howard's patent, our firm paid for a number of years 1s. per cwt. upon our sugar, and 4d. per cwt. upon molasses. We agreed for our Edinburgh house, about 15 years ago, to pay Messrs. Terry & Parker either 1s. 6d. or 2s. per cwt. for the use of their patent, and the supply of materials. About 18 months ago, refiners were asked to pay for Dr. Scoffern's patent, 2s. per cwt. Mr. Finzel, for the use of his centrifugal improvement, proposed to charge 1s. per cwt.—that is known generally under the name of Rotch's Centrifugal Patents. One shilling per cwt. upon foreign sugar and upon colonial sugar, when colonial sugar has been cheap, is very nearly five per cent. ad valorem. I may perhaps anticipate a question, which your Lordships will probably propose. We should find it very awkward to be obliged to compete under free trade, if we must pay five per cent. to an inventor, while we have no protection whatever against rival refineries in the colonies—I speak chiefly of the colonies at present,

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present, because I do not think it is competent for us at this point to legislate with reference to foreign countries.

981. With regard to the great injustice of which you speak, it would be cured by the present Bill, would not it?

Entirely; I think it is a very satisfactory improvement to include the three kingdoms in one patent.

982. You would wish to carry the proposal a little further, and to include the colonies under the same clause?

I have a great objection to patent rights, as involving a monopoly; but I hope that your Lordships and the other House of Parliament will immediately follow this relief by exempting us at home also. It would be very hard to say that we should be obliged to pay a tax to patentees, if we are to be called on to compete with those who pay no tax.

983. You gave a list of patents, the use of which was paid for in the sugar-refining trade; you did not say whether those patents generally extended to Ireland or not?

It is a point upon which I have not information. I should think in general, unless it were important, no patent would be taken out for Ireland. With respect to the centrifugal system, no patent has been taken out for Ireland. Mr. Finzel patented what he considered an improvement upon it, which consisted in the application of steam, in order to facilitate the escape of the molasses from the crystals of sugar.

984. Have the refineries in Ireland, of which you spoke, been recently established?

I think the molasses-houses have been instituted within the last very few years; one of them, at any rate, within the last two or three years; the sugar-house in Cork was established probably about three years ago.

985. It is probable that when the invention was made, no such establishment existed in Ireland, which would account for the patent not having been extended to that country?

When Hardman's patent was taken out, there was no sugar-house in Ireland; I feel pretty confident of that.

986. Do the houses to which you have alluded in Ireland use processes which are patented in England, and not in Ireland?

I am not aware whether they do or not; if the processes are of value, and they are in a condition to use them, they would not be judicious and skilful manufacturers unless they did use them.

987. The question is rather directed to the fact than the theory of the case, whether, in your knowledge, houses recently established in Ireland are using processes which they could not use in England, on account of patent rights being in existence?

I am entirely ignorant of that.

988. You cannot state whether those houses have been established in Ireland in consequence of the non-existence of patent rights in Ireland which do exist in England?

I cannot say so; I was never in any sugar-house in Ireland.

989. Does it come within your knowledge, or are you able to cite instances of processes or manufactures being established in Scotland or Ireland, in consequence of patent rights not extending over those parts of the kingdom which would have precluded those houses from setting up their business in England?

It is not within my knowledge; it may be the case.

990. In the instances of the patent processes to which you have just alluded in your evidence, as imposing heavy payments upon raw materials, were those patent privileges in the possession of the inventors, or were they then in the possession of the parties who had purchased the patents?

I should say that they were all in the possession of the inventors, or the parties who had, after the invention was patented, entered into an arrangement with the inventors.

991. Are-

991. Are you competent to say whether, generally speaking, patent rights are usually retained, and the profits of them appropriated to the benefit of the inventors, or are they usually sold at one form or other by the inventors, and passed into the possession and used for the benefit of other parties? *Mr. R. A. Macfie.*
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I think that is a point upon which a patent agent only could speak; we have generally had intercourse with the inventors themselves, I think.

992. The object of my question is to ascertain whether, according to your experience and knowledge, the principal benefit arising from patent rights passes generally into the possession of the inventor, or whether a large proportion of it passes into the possession of those parties who have purchased them in some form or other from the inventors?

I know, with respect to a notable patentee, that he gets a very small remuneration for his application of an important principle; but that was his voluntary act; he chose to arrange with certain parties for a per-centage, or for a certain moderate remuneration.

993. That portion alone of the profit derived from an invention which the patentee gets can be considered as an inducement to further inventions; that portion of it which passes to the capitalist purchasing the patent can in no respect tend to the encouragement of invention; it is with a view to that consideration that my questions were put?

I should say that, so far as pecuniary inducement operates upon the minds of clever men, they have that inducement to a considerable extent under the present law.

994. The inducement under the present law goes only to the extent to which the benefits derived from patent rights pass to the inventors; it does not include the portion of pecuniary benefit which passes to the purchasing capitalist?

The purchasing capitalist must give a consideration for them.

995. That portion which goes to the inventor in the form of purchase-money for his discovery is the only part of the profits of the patent right which really acts as a stimulus to further invention?

Certainly.

996. At the same time, I suppose there are some inventions which require the assistance of the capitalist in order to bring them into useful operation?

I think there cannot be any doubt of it. There has lately been a society formed for buying up inventions or discoveries—I suppose unpatented—from those who are unable to patent them themselves, and bring them forward.

997. Do you believe that the exemption of the colonies from the operation of the patent law would lead to any considerable extension of the process of sugar-refining in the colonies?

I think it could not fail to do so, provided there were any great discoveries made and patented; at present I do not think we are in that situation. The importance of the matter is very great in my eyes, and I think it can hardly be sufficiently so in the eyes of your Lordships. Your Lordships, perhaps, are not aware that there is a great change going on at this moment in regard to the form in which sugar is used. Till within these few years a very large proportion of the consumption of sugar was in the state of raw sugar; the rest being in the state of lump or loaf sugar; now, the consumption of raw sugar is rapidly diminishing, and its place is being supplied by an imitation of raw sugar, produced in refineries, of a better flavour and a higher colour: as refiners, we have no doubt it is a better article; the fact is, it is displacing raw sugar; we are making it to compete with the colonies; and if the colonies and we are to make that article, the one under a tax to the patentees, and the other not, we shall be put to a disadvantage.

998. So that the exemption would operate as an unjust and unfair advantage to them?

I am very glad that your Lordship has used such a strong expression; I did not like to state it so decidedly.

999. Are there many sugar-refineries in the colonies now?

I only know of one in Barbadoes, and one or two very small, and I suppose

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dying, ones in Jamaica ; but there has been a strong disposition to adopt central factories, and those are just sugar-refineries.

1000. They are not adopted yet ?

A great deal has been said about them, and I dare say eventually they may be adopted. As refiners, I think we ought not to encourage a distinction between the manufacture and refining of sugar ; the patent laws do not distinguish between the two ; I consider refining as just the perfecting of a process which is begun on the estate, and it may be perfected on the estate.

1001. There is a portion of that manufacture which can only be carried on in the colonies, and cannot be carried on in this country, and therefore by extending the law of patents to the colonies, you would expose them to injurious competition from other sugar-growing countries into which, necessarily, the patent laws do not extend ?

Of that there is no question ; I think their case, and that of sugar manufacturers at home, whether from beet-root or imported raw materials, exactly correspond ; the exposure to such competition is alike.

1002. Is it your opinion that the progressive improvements in various processes in your manufacture from time to time have been accelerated or retarded by the existence of the patent laws ?

Monopolies, I think, in no case can be beneficial. My own impression is, and it is a very strong impression, that the manufactures of this country as a whole, and ours in particular, suffer very much by the existence of any patent laws.

1003. You object to the existence of the patent laws upon general reasoning, that general reasoning being fortified by your own personal and practical experience ?

It is a subject which I have not directed my particular attention to for any length of time, and therefore I only give an impression ; I would correct myself thus far, that it seems to me a matter of some doubt whether the great vacuum-pan improvement would have been perfected but for the hope of the monopoly ; it might have been so.

1004. Taking the whole subject in a general survey, the leaning of your mind and your experience is hostile to patent rights ?

Decidedly so.

1005. Will you state to the Committee the grounds upon which you have come to that conclusion ?

One of the grounds is, that after a discovery has been made and patented, other parties for 14 years are discouraged from making further improvements.

1006. I understand, from your preceding evidence, and from the evidence of Mr. Fairrie, in which you have declared your concurrence, that the main ground upon which you rest your opinion is, that the obstructions which the multiplication of patent rights creates to a progressive improvement in your processes predominate over the advantages you believe to arise from the great discoveries created under patent law encouragement ?

Yes ; and I think the patent laws are injurious in this respect, that they substitute a desire for money in the place of the more legitimate desire for doing good and earning a laudable distinction ; they make every discovery a matter of money-value ; people are led to say, I can turn this into money ; I will not divulge it just now ; I may sell it, or make use of it in a future patent.

1007. Do not you think the patent laws offer an incentive to discoveries and to inventions ?

I think they must do so in certain cases.

1008. To that extent, is it your opinion that there would have been fewer discoveries and fewer inventions if there had been no patent laws ?

To that extent, undoubtedly ; but it is a question of preponderance, whether there would have been more in the absence of patents than there have been under the prevalence of patents. I am inclined to think that the absence of patents, by giving more freedom, would have caused an increase in the number of important improvements, at all events. With respect to discoveries, I do not think

think the prospect of reward has any connexion with them ; I think they are fortuitous. Mr. R. A. Macfie.

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1009. You are not disposed to dispute that the patent laws have offered certain incentives both to improvements and to inventions ; but you think that there are other advantages to be derived from the non-existence of patent laws, which overbalance the advantages derived from their existence ?

Undoubtedly.

1010. The other advantages which you conceive would arise from the absence of patent laws being, as I have understood your evidence, the absence of the impediments which now are really found practically to obstruct the progress of improvements in processes of manufacture ?

I quite agree with that.

1011. The conclusion which you have arrived at is, that it is desirable that the patent laws should be abolished ; but if they are not to be abolished, that all classes of Her Majesty's subjects should be subjected to their operation ?

We should like that, as refiners. Whatever may be ultimately resolved on, I think there ought to be some board of control to which patents should be referred. I would certainly abolish the monopoly which a patent gives. It might be that, in certain cases, there should be, as a reward, a privilege given of charging so much money for the use of the invention ; but I conceive it intolerable that, by our own laws, we should prohibit British subjects from working important improvements in manufacture.

1012. Have you considered the Bills which are before the Committee in their details, with respect, for example, to the constitution of the proposed Commission ?

I read over with some care the Bill, No. 1. The Bill, No. 2, I have only received since I came to London. In going over the clauses, I think I might be able to make some remarks ; but they are not sufficiently before me now to do so. I highly approve of the clause in Bill, No. 1, that all patents should be published. I think, for the sake of the provinces, they ought to be so. On various occasions, I have had to go to Chancery-lane to read improvements in our own refining trade ; whereas, if they had been published monthly with the Board of Trade Returns, we should have had them in all the public libraries in the kingdom. The result would be that Manchester, Birmingham, Liverpool, Glasgow and other places would all have the benefit of knowing of any improvements. With respect to the report of the Commission, which is suggested in Bill, No. 1, I felt that it would have been better if the object of the report had been stated. It did not seem to me that any change is proposed in the object of the present report, but it would be merely the question of novelty which would be reported on.

1013. What would you have the report to embrace ?

I should like it to be very extensive. I should like it to report whether it would be wise on the whole to grant the patent, and under what restrictions, and for what length of time.

1014. The general merits of the invention you would have included in the report ?

Yes. If it is a trivial matter, which would only annoy manufacturers, by exposing them to threats of actions, it should not be granted. I highly approve of that part of Bill, No. 1, in which it is said that no invention known abroad shall be patented.

1015. When you refer to granting patents, more or less of a frivolous character, being used as a means of annoying and obstructing you, does that observation upon your part arise from any practical experience which you have yourself had of such results ?

We had a very troublesome matter once with a patentee. I do not know that I can speak of such occurrences from my own experience ; but I fear it will be so when parties can get patents for 20 l.

The Witness is directed to withdraw.

A. V. Newton, Esq.
16th May 1851.

ALFRED VINCENT NEWTON, Esquire, is called in, and examined
 as follows :

1016. YOU are a patent agent ?

I am.

1017. Are you in business with your father ?

I am.

1018. Do you generally agree with his view as to the patent question ?

In general I agree, but not in all points.

1019. You gave evidence before a Committee of this House upon the Extension of Designs Bill ?

I did.

1020. Did you give evidence before the Privy Seal Commission ?

I did not.

1021. Have you had an opportunity of considering the two Bills which are referred to this Committee ?

I carefully read them through some little time since ; but they are not quite so fresh in my recollection as I should desire.

1022. Will you have the goodness to state in what respects you either approve of them or object to them ?

There is one objection which appears to me important ; it relates to foreign inventions not being allowed to be patented in this country unless they are entirely new ; that is, if they have been worked abroad they will not be able to be patented in this country ; I think that if that proposition is carried out, we shall be likely to lose a vast number of valuable inventions. I can give the Committee a little insight into the number of inventions which might be lost if that were the case. In preparing a paper on the subject of patent law reform, which was read a short time since before the Institution of Civil Engineers, I ascertained, by reference to official documents, the following particulars, which I embodied in my paper. In France (where the legal rights of inventors are acknowledged on payment of 4 *l.* per annum), the number of patents granted during the years 1847, 1848 and 1849, was as follows :—patents granted in 1847, 2,132 ; patents granted in 1848 (the year of the Revolution), 852 ; in 1849, the number was 1,484 ; making an average on the three years of 1,489 patents granted ; that shows that invention is rife in France. In the United States, where the cost of patents is very low, except to foreigners, and where the Commissioner of Patents has the power of rejecting applications on the ground of want of novelty in the inventions, there were, in the year 1847, 1,531 patents applied for, and 572 granted ; in the year 1848, there were 1,628 applied for, and 660 granted ; in 1849, there were 1,955 applied for, and 1,076 granted ; making an average upon the three years of 769 granted, after 2,806 applications had been rejected. We have thus, under systems which encourage the pursuit of invention in France, a yearly average of 1,489 patents granted ; and in America 769, against something under 500 in England, the great commercial mart of the world, and the place of all others where inventors might reasonably expect to be the best remunerated for their discoveries. The object of this portion of the paper was to show that the high price demanded in England for patents kept back inventions ; my object in now bringing it forward is to show the large amount of invention which would be sacrificed if foreigners were not allowed to patent their inventions here after they had introduced them in their own country. Thus, supposing British and foreign countries to have contributed to France one-third of the inventions patented in that country, and the number of the United States patents to have been increased five per cent. by the introduction of foreign inventions (a large allowance, considering the invidious distinction drawn between foreigners and citizens by the American law of patents), there will then remain 993 French and 730 American inventions, making a total of 1,723 inventions per annum available for the improvement of our manufactures, but which it is proposed to exclude from this country if they have been shown to be practically useful abroad.

1023. Do

1023. Do you consider the number of inventions and the number of patents to be at all synonymous terms? *A. V. Newton, Esq.*

I do not; but still the number of patents is the only criterion we can have of the amount of available invention. 16th May 1851.

1024. Is not it a very unfair criterion?

If out of that 730 patents only 30 valuable inventions could be selected; yet it would be a serious drawback to manufacturers in this country if we were to lose those 30 inventions; for it should be remembered, that this would be a yearly loss.

1025. With regard to the statistics which you have now given, do they furnish any evidence as to the proportionate amount of inventions in each country?

Yes.

1026. Supposing the wish of the patent law reformers for cheap patents were fully carried out by the Legislature in this country, would not the number of inventions immediately upon the passing of such an Act be multiplied to a great degree?

No doubt.

1027. At that moment the number of inventions would not be multiplied in the same proportion?

There would be a greater inducement to invent; and many schemes, which are now in abeyance, would be immediately brought forward; I do not apprehend that at the outset more than a tithe of those brought forward would be of benefit to the public.

1028. Is not it now the case, that there are a number of inventions more or less useful for which patents are not taken out in this country, because the parties are deterred either by the expense or the difficulty of obtaining patents?

There is no doubt of it at all; but it does not follow that we ought to depend exclusively upon the ingenuity of British subjects for the continuance of our manufacturing prosperity. My reason for bringing this statement forward is merely to show that the effect of the clause to which I object would be to keep back from this country a large proportion of inventions. It is natural for a foreigner first of all to test his invention at home, and when he is satisfied of its value, he imports it into this country. Of the number of American inventions which are brought into this country, I should say that fully one-half are really valuable inventions. I have a good opportunity of judging of that, for the largest proportion comes through our house, and we are able to watch their progress. Some branches of manufacture in this country are wholly due to the ingenuity of Americans; and the new process of setting flax, which has proved so beneficial to the industry of Ireland, was introduced from the United States, after its merits had been publicly tested and approved by the Government of that country.

1029. Why do you imagine that those inventions would not be brought into this country if they were not subject to a patent law here?

Because it would not be worth the while of any party to pursue the invention unless he had the sole or a large interest in it.

1030. Would not it be worth the while of manufacturers in this country to make use of an invention which could easily be obtained in America or France, if it were likely to benefit them in the process of their manufacture?

I think not; my experience would go to prove the contrary. Some of the most valuable inventions are entirely lost to the public through the patentees not having the proper means of carrying them out. If they were open property, they would not be used at all.

1031. Do you mean to say that it is an inducement to a manufacturer in this country to use an invention that he has to pay a royalty for using it?

The inducement to take up an invention is increased when he can possess himself of the sole right to the benefit resulting from it for a time. The cost of the patent itself, and the payment to the foreign inventor, are frequently mere trifles compared with the outlay required to bring the invention to perfection.

1032. Is not an invention more extensively used at the expiration of a patent than during the continuance of it?

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Yes, if not superseded by a better invention; but it would most likely never be used at all, unless it were used by a party who found it worth his while to experiment upon it, and spend a large sum of money upon it, in order to bring it forward in a perfect form.

1033. Are not we now speaking of an invention which is used in another country?

Yes.

1034. Has not the expense been already incurred in bringing it into operation in that foreign country?

Yes; but that may not avail for its easy application in this country.

1035. You think it is necessary to give this privilege to an importer, in order to encourage the inventor in the foreign country to invent at all; you think you must open the market of this country as well as his own market, or else he will be prevented from inventing?

I think important inventions will not be imported into this country unless the party importing them has the sole right of using those inventions when imported.

1036. Is it not notorious, that all the manufacturers of this country are very jealous of allowing foreigners to inspect their works?

I think not.

1037. Is it within your knowledge, or do you believe that the manufacturers of this country, especially those who use very refined and recently-invented improvements in their machinery, give free access to foreigners to inspect their works?

All machine-makers would do so, and would willingly sell them anything which they manufacture.

1038. I am not speaking of willingness to sell; is not it a matter perfectly notorious throughout the whole of the manufacturing districts, that wherever ingenious machinery is used, there is a considerable jealousy of the admission of foreigners, especially if they be connected with manufacturing processes, to inspect the works which are going on in this country?

There is a certain amount of jealousy.

1039. If there be a certain amount of jealousy, does not that jealousy rest upon the foundation of this feeling, that if foreigners connected with manufacturing processes abroad are allowed to become cognizant of recent improvements in this country, they will apply those improvements to their own works abroad?

A manufacturer may suppose so.

1040. If manufacturers in this country are apprehensive of their processes being carried on by foreigners, if admitted to inspect new inventions here, is not it equally true, that danger will arise if persons in this country are allowed to inspect recent inventions in foreign countries?

Those remarks merely apply to a certain class of inventions; for example, if I invent any tool, a planing-machine, or anything of that kind, and I am the manufacturer of it, I have a desire that foreigners shall come and examine what I have to sell, and I would sell to any amount; if I am a machine-maker, and I make spindles, or anything of that kind, I show a foreigner my improvement, and I supply him with it. But the jealousy which manufacturers have may arise from another source, they may have some private way of systematizing their manufacture, which, when once known, would give great advantage to a party, but which really may be no invention whatever.

1041. I understood you to say, that inventions and improvements in machinery made abroad would not be brought into this country unless a person were induced to bring them in under the benefits to be derived from a patent right?

Yes.

1042. Then you conceive that individuals becoming acquainted with improved processes of manufacture, say in the United States, would not introduce those processes:

processes of manufacture into this country if they introduced them only for the benefit of their own works? *A. V. Newton, Esq*

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That is my opinion.

1043. How is that opinion reconcilable with the notorious fact of the great mutual jealousy in all works in which recent improvements in manufacture have been introduced, of admitting other individual rival manufacturers to inspect those improvements?

If your Lordship will allow me, I think I can give the Committee some evidence, which will show at once that my opinion is based upon good grounds. We need not go abroad, I think, to discover very good proof that if an invention is not held by a party who has the sole beneficial right to it, it will not be worked. I go merely to Scotland and Ireland. In my paper, before alluded to, I said that the effect of parcelling out protection, that is, giving protection under three patents instead of one, is to deter a large number of English patentees from bringing their improvements to bear in Scotland and Ireland; and thus, by allowing the public to work the inventions thus abandoned by their originators, virtually to deprive Scotland and Ireland of the advantages derivable therefrom. (This is a portion of my argument which goes to prove that the high cost of patents deters parties from carrying out their inventions.) The extent to which this appropriation of English patentees' inventions might be carried in the sister kingdoms, if no deterring influence existed, will be seen from a comparison of the number of patents taken out in the three kingdoms during the years 1846, 1847 and 1848; they were as follows: England, 1846, 494; Scotland, 178; Ireland, 90. In 1847, 498 for England; for Scotland, 168; for Ireland, 76. In 1848, 386 for England; for Scotland, 150; for Ireland, 34: thus showing that Scotland may appropriate, on an average, about 294 English inventions annually, and Ireland, 392. It is scarcely necessary to insist on the fact, that that is not done in Ireland; but then there must be some reason for it; and I know no other reason than this, that it is not worth while for any party to take a valuable invention from England, and use it in Ireland, because every manufacturer knows that without great expense and trouble, he could not hope to establish the new manufacture, and that after he had done so, his neighbour might avail himself of his experience, and compete with him by the use of the same invention.

1044. When patent rights are granted, do you think the value and efficiency of those rights would be in any degree impaired if they were limited to the prohibition of any person working the patent upon a wholesale scale, permitting every individual, or separate proprietor of works, to apply them to his own works?

I can scarcely put a meaning to that question.

1045. The meaning of the question will be best understood, probably, by referring to your previously stated opinions: the Committee understand you to state, that individuals in this country would not like to import inventions from abroad unless they were allowed to import them, not for the benefit of their separate or private works, but upon an enlarged scale, under patent rights; upon that statement my question is founded, whether you think the validity and efficiency of patent rights would be diminished, if, while they preserved to the patentees the power of working the patent upon an enlarged scale for the purposes of sale to other parties, they at the same time permitted individuals to apply the invention without any interference by the possessors of those patent rights to their own private works?

My notion is this—and I think it will meet the question—that it requires a large expenditure of both time and money to bring an invention into practical use. It is one thing to say, if you construct a machine after this manner, I think you will obtain a decided advantage by it; and another thing to put that invention into such a shape that a workman can at once operate with it, and effect the result which it is desired to obtain.

1046. The Committee understand you to state this: that after an invention has been fully developed in its practical results in a foreign country, say in the United States, the benefit of that invention will not be made available to parties in this country unless there is superinduced the benefit to be derived from an exclusive right; in other words, that an individual becoming acquainted with the

A. V. Newton, Esq. practical operation of that invention in the United States, will not have an adequate inducement to bring it into this country, if the inducement is limited to the use of it in his own works?
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Yes, that is my opinion, speaking generally.

1047. Proceeding upon that principle, would you be prepared to say that the patent right would be sufficient if it gave the party protection in introducing the invention for general sale in this country, but left the patent right incomplete, so far as it permitted every individual in this country to work that invention on his own account, applicable only to his own works?

If a patent is granted at all for an invention, the patentee can do what he likes with it; he can use it himself exclusively, or license other parties to use it; therefore, I still cannot see the drift of the question.

1048. Whatever may be the rights or advantages to patentees under the patent laws, the advantages which are supposed to accrue to the public are, that the inventor has been induced to invent, and has also been rewarded for disclosing his invention to the public?

Yes.

1049. Having once made the invention, and having disclosed the invention to the public in England, is not all the advantage required by the public already obtained?

I will instance a case where it will be seen that it required the intervention of a party who should have a considerable interest in the invention to make it of use at all. There is a machine well known in the United States as the Excavator; it has been nicknamed in this country the Yankee Geologist; that is, or has been, in operation all over the United States for the construction of railways. It has been introduced into this country; and owing to the patent right being divided among several parties, and no one being able to act exclusively as an agent for the general interest, it has been so mismanaged, that it has been found impossible, by a most persevering gentleman, who is pecuniarily interested in the invention, to carry it into use.

1050. Does not the difficulty arise from a patent having been obtained for it in this country?

It would never have shown itself here in the form of a machine unless there had been a patent.

1051. Is not it practically the case, that that very invention was brought into this country by a person who had no claim whatever to the merit of the invention?

It very rarely happens that an invention is imported without the consent and full concurrence of the inventor, or his legal representative. Nearly all the inventions imported into this country are patented by persons who represent the interests of the original inventors. In the case I have named, the original proprietor in the United States was not the proprietor in this country. The inventor died before the invention was brought here.

1052. Will you state more in detail what are the difficulties which have prevented the co-partners from introducing that invention successfully into this country?

There was no one party who had a sufficient interest in it to make it worth his while to push it well; there was no question about the value of the invention, because, as I before said, it was carried out in the United States, and used very extensively. I think that all inventions which are of great interest like that, and all complicated machines and elaborate processes, would never get here at all, unless they were introduced by a party who should have either the sole right to them, or have a large interest in them. I have seen the Excavator operating upon the Eastern Counties Railway, and, I believe, it has been employed by Mr. Brassey. I do not know that any mechanical difficulties have arisen here to render it valueless. All I have heard of it in the United States is, that it has been successful. I think the want of success in this country can only be attributed to its not being in the hands of a party who has a sufficient interest in pushing it forward.

1053. What

1053. What do you mean by the want of success; is not it successfully used in this country? *A. V. Newton, Esq.*

It is not used at all.

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1054. Is that owing to the machine not being perfected in this country, or because it is not appreciated by persons who want that description of work done?

The machine has not been profitable.

1055. Is that because it has not been perfected in this country, or because it has not been made use of by those persons who wish to excavate?

It has not been made use of.

1056. Do you attribute its not having been used to the circumstance that no individual has had the right to give permission to use the patent?

No; one of the proprietors has felt it prudent to demonstrate the value of the invention. I consider that the patent right is so divided, so spread among the proprietors, that it is a very good example of what the position of inventions would be if there were no patents at all. This machine is a very complicated piece of mechanism, and, therefore, even if a party fancied that he could use it without being punished as an infringer, it would cost him so much money to construct the first machine that it would not be worth his while at all to do so; he must have a prospective equivalent for the risk of his outlay in the shape of an exclusive proprietorship, or his success becomes a demonstration which will equally avail his rivals, as himself.

1057. You mean that, in the absence of a clearly defined patent right, nobody has thought it worth while to construct a perfect machine of that kind in this country?

Not precisely so, but it amounts to that in effect.

1058. Are there not various obstructions to the introduction of new inventions into a country; first of all, doubts of a reasonable character as to its practicability?

Yes.

1059. Those doubts may be overcome by showing the thing in a foreign country in actual practical operation; but secondly, are there not prejudices and habits, imperfect knowledge, and various other obstructions which arise from the imperfect state of the human mind in a country?

Yes; very strong objections arise from this cause.

1060. Does not that second class of obstructions exist, and produce more powerful effects in those descriptions of operations in which competition in the given country is not active; for instance, is not there greater difficulty in bringing a country to appreciate an invention which has regard to processes with respect to which there does not exist an active competition at the time, than in reference to processes in which there does exist a very active competition?

I think so.

1061. Is not it more difficult to introduce for the first time into a country an invention upon a matter having reference to an operation which has not previously been practised in that country, than in reference to an operation such as cotton spinning, or other processes of that nature, in which there is extensive personal competition between parties in the same country, and extensive competition between rival countries?

I think, perhaps, it is so.

1062. Do not you think it would be more difficult to introduce an invention for a new purpose, which a country has not been previously accustomed to, than to introduce an invention which shall facilitate or cheapen, or expedite processes in the cotton manufacture, for instance?

Yes, I think so.

1063. Is not that the explanation of one of the various difficulties and various degrees of delay which occur in introducing new processes into this country where they are derived from foreign inventions?

That is a great difficulty; it requires a party who has a great interest in it to break down the prejudices, and that is more or less necessary in the introduction of every invention: the more trifling an invention may appear to be, the less

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difficulty there is in introducing it; the more really valuable and important it is, the more necessary it is that there should be one party who shall have a large interest in it, and be able to give the whole of his time and attention to pursuing it. I know of many inventions which I consider, as far as I am able to judge, of immense value, which have yielded nothing, and perhaps will never remunerate their inventors, owing to their totally neglecting them, and I question very much if they will ever yield anything to the public either. There is another reason why I consider the clause, which affects the importation of inventions into this country, to be so objectionable, and that is, that English patents, when granted for native inventions, may be invalidated by evidence brought from a foreign country that the invention was not new at the time of granting the patent; I think that that is the strongest objection, or at least as strong an objection to this clause as my former objection. No man patenting an invention in this country can be sure that he has a valid patent; it is an impossibility to satisfy himself upon that subject; and I think for that, if for no other reason, that clause will be extremely injurious, because the patentee will then have all the world against him, as it were; whereas now he has only the parties engaged in the same trade as himself in his own country.

1064. You think it is desirable to give him protection for inventing that which is not new?

Decidedly; if it is new in this country, it is all we can desire; he deserves to reap a great advantage from it, inasmuch as the public will reap a greater advantage from his labours.

1065. You look upon the person who introduces a new invention as an inventor?

Yes; I am now speaking of a British inventor; but his invention may have been anticipated abroad without his knowing anything of it.

1066. Are not almost all great inventions arrived at about the same time by different parties?

It is frequently the case; the miner's lamp, the electrotpe and the electric telegraph, are familiar examples.

1067. Is not there an important difference between an importer and an inventor, in this respect: if A. does not invent, it is generally assumed that nobody else will invent that particular discovery; but if A. does not import, it may be most reasonably inferred that somebody else will import it, and therefore the object to be accomplished by the patent rights in the two cases is very different?

I look at an inventor in a different light from many parties; I consider that all the inventions of importance which we possess, although to the parties who have brought them forward special honour is due, would not have been lost to this country if those parties had not invented them. I consider the merit of an inventor lies in the fact of his bringing forward his invention at the time he does; that his whole merit, as far as the public is concerned, consists in this, that he has anticipated others in the race, and has consequently given the public an early opportunity of enjoying the benefits derivable from the invention. He, therefore, who first introduces a valuable invention to the notice of the public is, to all intents and purposes, a benefactor to his country.

1068. You think that what he deserves reward for, is having chosen the moment at which the article is really required in order to introduce it?

Or having seen the want of something, and supplied the want, no matter from what source.

1069. Still, do not you think that the distinction which I have pointed out still exists, if not in the absolute principle, yet strongly in degree, that if a person invents a thing, it may possibly be assumed that the invention would have been made by some other person at some subsequent but probably distant time; but if a person does not import a thing, must not we assume that it would have been imported by another person not at some subsequent and very distant time, but at some subsequent and very near period; do you not perceive the existence of that distinction?

My opinion is, that many inventions would not be imported at all, but from
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the circumstance that parties expect to benefit themselves by importing them ; *A. V. Newton, Esq.*
there may be of course exceptional cases.

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1070. Have you any other remarks to make upon the Bills before the Committee ?

One of the Bills provides that specifications shall be published *verbatim* ; that is a matter which I think is open to objection, and for this reason : it is desirable, certainly, that the existence of all inventions shall be made known to the public, and if those inventions are fairly and concisely reported, I think that is all that the public can desire ; but if the specifications are published *verbatim*, you then put into the hands of the public the means of pulling to pieces those specifications of finding weak points in them, and annoying the patentee in a way which is anything but desirable. If a party is particularly interested in an invention, he may go and examine the original specification ; but if by a *verbatim* publication it is thrown in the way, not merely of parties interested in the matter, but also of those who may find it advantageous to interest themselves in it, the inventor is, I think, far more open to injury than at present. It is like putting before the world copies of the title-deeds of all estates, on the plea of showing what are their several boundaries, and thereby giving any man who is quick at finding flaws in such documents the means of founding a profitable business upon his discoveries. I do not see any advantage which is to be derived from publishing specifications *verbatim* ; but I think there is the disadvantage which I have mentioned.

1071. You think the publication of specifications in detail may show possibly weak points in detail, the importance of which will be exaggerated by other parties, and through that exaggeration they may be misled into false courses of action ?

I think so, but I think more than that ; I think it would give increased facilities for people to dispute a patentee's right when, although his moral right was unquestionable, his legal right might appear doubtful.

1072. Your feeling is, that though you think it would be desirable, if there is an important defect in his specification, that the public should be made aware of it, if it is only a technical point, or one which may be amended, it would lead to practical evils if such technical points were too closely investigated by the public ?

Yes, that is the drift of my observation ; it is certainly very highly desirable that the public should know what has been invented, because patents are now frequently being taken out for inventions which are already secured under patents.

1073. You see no difficulty in publishing indices in different forms, so as to give the public and inventors all requisite knowledge as to previous inventions ?

That would be very simple indeed ; if our own indices were published, they might perhaps contain every thing the public desires ; but, beyond that, I think the publication might go, that is, it might give an account of the inventions so as not only to state what they are not, which a good index would do, but to state positively what the inventions are, though not the exact limits which define the patentee's rights as respects the public. There is another matter which I think of great importance, and that is the system of payment which is proposed by both these Bills ; it is a system which I certainly object to very much. It appears to me to be extremely desirable that patents should appear to the public, as the learned Judges tell us they really are, bargains between the inventors and the public ; that they shall remain distinct from monopolies ; that it shall be seen that it is for the mutual benefit of the inventors and the public that patents are granted at all : if a patent is granted upon the payment of a certain sum, that sum we may presume is analogous to the cost which has been incurred by the Government in issuing the patent ; and, if it is so, then I do not see how at any future time any tax can be properly put upon the inventor, because the Government does not pretend to grant a monopoly, but merely to let the patentee enjoy a certain right, the subject-matter of which emanates from his own mind ; if a tax be put upon that at a future time, it cannot be said to be a portion of the cost which has been incurred in granting the patent, and therefore it can be interpreted in no other way than the sale of a monopoly ; that appears to me to be a very injurious thing, and contrary to the principle which should be

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laid down in such matters ; for if I may be allowed to quote a great authority on a matter somewhat analogous to this, I would say, " If any check were required to these charters"—this was stated in a debate in the House of Commons on granting the charter for model lodging-houses—" If any check were required to these charters, it ought not to be in the shape of a fine, but in the discretion of the Government, the fact of their being granted being an admission by the Government of their beneficial effect." That is reported to have been said by the President of the Board of Trade, and it appears to me to lay down a principle which is exactly suited to this case.

1074. Your objection to these periodical payments is founded upon your opinion that such a course would not accord with the theory which you believe to be the right theory of granting patents, and not because you think it would lead to practical inconveniences ?

I think there are some practical inconveniences, which I will refer to directly ; but my first objection is, that those payments can only be considered in the light of a fine or of a tax. It does not appear to me to be desirable that a tax should be put upon those grants, but that there should be merely a certain payment analogous to the expense which Government is put to for issuing the grants. Although patents cost a large sum now, that cost may fairly be considered as the expense to which the Government has been put in issuing them.

1075. What do you consider to be the object of the patent law ; is it to maintain the general rights which an inventor possesses, or to give an advantage to the public which they would not otherwise have obtained ?

To give an advantage to the public which they would not otherwise have obtained.

1076. Do you hold that an inventor has any rights apart from the advantage to the public ?

I cannot consider that he has.

1077. In estimating the propriety of any payment, either present or periodical, is not the true mode to judge of it to look to its probable effects and consequences ?

I think not ; I think it is to look to the principle on which the system is based.

1078. You think that it is not practically right to look to the consequences of any charges, and to judge of the propriety of making those charges, by whether the effects produced by them are calculated to be beneficial or injurious to the public ?

I think it is looking at the wrong end of the matter ; I think, unless a system, whatever it may be, is based upon correct principles, the result cannot be right.

1079. Do you not think that it is a correct principle to grant privileges to individuals, accompanied with such charges as shall be shown to be productive of beneficial results to the public ?

I should say it was so, certainly.

1080. Does not that admission involve the admission that the true mode of estimating the propriety or otherwise of the charges is to look to whether they will produce in the end beneficial results to the public, or the reverse ?

We cannot see that ; we can only imagine it ; for example, I think that I know it will be detrimental to adopt this system, but other parties may think it will be beneficial ; but if I look to the principle upon which it is based, and see that it is defective, I am satisfied the system cannot be right.

1081. Do you think that it is more easy to determine with certainty upon the validity of principles than it is to determine with accuracy the probable effects and results of measures ?

I think so.

1082. You have stated that you think there will be practical disadvantages attending such a system of payment ; will you mention what those would be ?

If a party does not pay the sums proposed, his patent, as I understand the Bills,

Bills, will be forfeited. Now, it appears to me, that if those payments are looked on, as they can only be looked on, as a tax upon the inventor, it is only a debt due to the Government; and therefore, I think, that if he neglects to pay them when due, the punishment is much greater than is merited by the delinquency. It should be still looked on as a debt, and collected as such; that would prevent an inventor from losing his patent, although he had forgotten to pay. I know from the experience of the French law, it is quite a risk as to whether the annual payments are made or not; inventors entirely forget that they are due, and, consequently, French patents are continually failing from that cause.

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1083. In the case where the French patentee suffers from not having made the periodical payment at the time it is due, it is to the advantage of the public, because they are relieved from the tax which they have hitherto paid to him?

But it is a robbery of the inventor if he is deprived of a right that has been granted to him.

1084. So far from being a robbery of the inventor, is it any thing which the inventor has any right to complain of when it is owing to his own neglect?

I think so; I should be very sorry to be punished for not remembering every thing I ought to remember. It is expecting from a man much more than he can fulfil.

1085. Expecting him to remember his own engagements?

I think so.

1086. Is not it a very common regulation to require a person to hold the lease of his house on the tenure of paying the premium of insurance every year?

Yes.

1087. Does not your objection apply equally to that case?

If he does not pay his premium of insurance, his interest in the house is not necessarily forfeited.

1088. If he does not pay his premium of insurance, he forfeits the lease; that is, the term upon which the great majority of leases of houses held in London, under the Crown, are granted?

That is a matter I am not acquainted with. It appears pretty evident to me, from those clauses of the Bill, that the payment of those different sums is intended rather to catch the patentee, and to deprive him of his rights, than any thing else.

1089. Is there any other practical inconvenience arising from a periodical payment which occurs to you?

I have mentioned that it looks like the sale of a monopoly; in fact, that it can be considered in no other light; and also that the patentee will thereby be made to lose his right by a small, and to the public an unimportant, neglect. If all property were held under such a tenure, it would not keep in the hands of the present holders for half-a-dozen years.

1090. Do you think it wrong to sell a monopoly, provided it can be clearly shown that by that sale the public interests are benefited?

I think not. There is a certain class of monopolies which, no doubt, are of great benefit to the public; for instance, the monopoly of the Hudson's Bay Company in taking Vancouver's Island; I do not see any analogy between that and the sale of patent rights; it puts the inventor upon a wrong ground. I consider that he has a right, independently of the grant of the patent, inasmuch as what he does is for the public benefit, but at his own cost; the public must therefore, in justice, concede him something for his labour; and, therefore, they give him the benefit of his invention for a certain time, in the hope of realizing something in return for paying him a tax for 14 years.

1091. Do not you admit that the whole construction of patent rights is an arrangement made for the purpose of promoting public interests?

Certainly.

1092. And, therefore, it is justifiable to constitute them in any form which can be shown to be conducive to that object?

Yes.

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1093. Do not you conceive it an inconvenience to the public that a great many useless patents should be in existence which are of no use either to the patentees or to the public, but which may serve as an obstruction to other inventors or manufacturers?

I do not think the existence of useless patents does the least harm to anybody; that notion I consider to be an utter fallacy. If an invention is of no use whatever, the public will never be troubled with it; if there is the least merit in it, I think the patent ought to exist for the whole term for which it was granted, in order that the patentee may have an opportunity of deriving any benefit from it which may turn up. I have known many patents, at nearly the end of their term, sold for 50 £. and 100 £., where the inventor could make nothing of it before. And in a case which recently passed through my hands, a patent, which had never been worked in this country, was sold for 1,200 £., although it had scarcely two years to run. In this case, the inventor would have lost that amount of remuneration if he had had to pay a tax like this. He would not have paid the tax, because he would have thought there was no likelihood of his ever realizing anything from the patent. I think if a grant is once made, it is only fair to the inventor to allow the grant to remain in existence the whole length of the term for which it was originally made. I can see reason in the system which is adopted abroad, that if an invention is not carried out within a certain time, that is, if it is not publicly worked, it shall be forfeited, because the public are supposed to participate in the benefit resulting from every patent which is granted; and if no benefit is presented to the public, there may be some reason in supposing that the inventor is not acting up to his part of the contract.

1094. How could it be determined whether the patent had been worked or not?

It is not a matter which I should desire to see carried out; I merely mention it, because it is carried out abroad.

1095. Can you explain how it is carried out abroad; how would you determine whether a patent has been worked or not?

It is a very loose system; the inventor, if a foreigner, will in general delay the working of his patent to the last moment allowed by law, and he then puts his machine together in a most slovenly way; he then gets some parties together to see it, and they say, "We consider that the invention is worked," and their evidence to that effect may be produced at any future time.

1096. Should you think that a useful system?

I think not.

1097. You said you saw some reason in it?

I see some reason in patents being cancelled if they are not worked within a certain limited period; that is, it is clear of the objection which I have made to their forfeiture for non-payment of the periodical tax.

1098. That surely implies that you have the means of ascertaining whether they are worked or not?

There might be a plan adopted for determining that, by appointing some qualified party for the purpose; but I do not think it is a desirable system to adopt.

1099. Is there any other point to which you wish to refer?

There is one other point, which is, that if we are to have a new patent law which shall work well, it is desirable that the Registration Act for the protection of articles of utility should be repealed; it has worked, I think, extremely badly, because the scope of the Act has never been defined, and it appears incapable of definition; parties will take the opinion of counsel, and register according to that opinion. If their invention is infringed, they will go into Court to defend themselves, and they find that the protection they fancied they had got melts away, and is no protection at all. There are certain things which undoubtedly come under this Act; but I think scarcely one in ten of those which have been received by the Registrar should have been received.

1100. Will not the inducement to parties to register articles under that Utility of Designs Act be much less if greater facilities at a less cost are granted to them in obtaining patents for inventions?

I think

I think so; but it may be a resource for parties who have been refused patents. There is no inquiry here; but it is proposed—at least I should think it is likely to be proposed—by the Commissioners who are to be appointed under these Bills, that there should be a means of inquiry into the matter of all applications for patents, something analogous to the inquiry we have now; whereas in registering, a party has merely to take his invention to the Registrar, and say, “I wish for your certificate to this,” and the certificate is granted. It seems to me, that nothing can come under this Act which cannot be included under the patent laws, although there are many things which are included under the patent laws which the Registrar would certainly reject. If that is the case, if the patent laws will take in every thing which this Act will include, there appears to be no use in the Act at all.

A. V. Newton. Esq.

16th May 1851.

1101. (To Mr. *Webster*.) Has there been much doubt in the Courts about the interpretation of the Utility of Designs Act?

I do not think there has been any doubt among lawyers as to what the legitimate object of it was; but the fact is, no doubt, that owing to people having no cheap means of protection, they ran the risk. Mr. Newton knows that inventors have been advised many times that they could get no protection; but they said they would have the appearance of it. If you look at the two Acts in this view, you will see that there ought to be no doubt about it. The Ornamental Designs Act refers to shape and configuration for the purposes of ornament; the Utility Act refers to the shape and configuration for the purposes of utility; in both cases it being the shape and configuration; but the test in the one case is ornament, and in the other utility; therefore they are so closely *in pari materid*, that if you have cheap patent protection, the other will die a natural death, so far as regards exceptional cases.

1102. (To Mr. *Newton*.) Is not the objection which you make to the Utility of Designs Act an objection to making patents very cheap; are not persons frequently very anxious to get that sort of semi-protection more as a puff than as a real protection to their inventions?

I think, if their applications were inquired into, there would be quite a sufficient check.

1103. You think that previous inquiry is necessary?

I think it is highly desirable; I think no patent law can be a good one without that inquiry; the more stringent that inquiry is, the better in general I should say the patent law will be, provided it is fairly made; but if there are two Acts which will take in the same class of inventions, and the one proposes an inquiry and the other not, it appears to me to be highly detrimental to the interest of inventors. That I am not assuming an impossible case may be thus made evident: if, for instance, I take a wooden block, a paving block, of a new form, a form which will interlock with others; if I register that form, being a new one, I am protected; if I patent that block, I patent a combination of the blocks; in either case I am protected for a new pavement; and there are many instances of that kind. Therefore, it appears to me, that there are a great number of inventions which may be protected under the Registration Act as well as under the patent law.

1104. In the one case the shape and configuration in the abstract is protected; in the other, the mode of the manufacture of the block and the mode of combining it?

Under the patent law it would be shape and configuration; but it is a wider claim, because I claim also the construction of the pavement, and do not confine myself exclusively to the block. There is one other point to which I wish to refer, and that is, that I think that in any new law there should be some provision made that inventions, when they are once secured, should not be re-patented without the patentee being enabled to satisfy himself that they were not already patented. There is a difficulty we have always had hitherto on that subject; there have been about 250 inventions patented, the particulars of which we have not been able to ascertain, owing to six months being allowed for the parties to specify. I should be very sorry to say anything against the system of allowing parties a certain time to prepare their specification, because I think it is absolutely necessary that such should be the case; but I think there ought to be some means of enabling an intending patentee to ascertain whether the invention

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which he now presents is the subject of an unspecified patent. I have known several instances of parties obtaining a patent, and afterwards finding that their invention was already patented, but unspecified; I think that that would be a matter very readily arrived at, because as every applicant for a patent is obliged now to send in the particulars of his invention; if the party who receives those particulars, say, the clerk of the Attorney-general, were allowed to state that such an invention is already included in a patent, information of that kind would be of the greatest service.

1105. How does it occur that a man can take out a patent in ignorance of an unspecified invention of the same kind; supposing six months are allowed for every one to perfect his specification, after having given notice of the application, would not it always keep that interval of six months open, and enable anybody, who came subsequently to any given application, to ascertain, before he completed his patent, whether it was an infringement of another patent or not?

If a party makes the best inquiry he can, and examines all the specifications that are enrolled, he knows that still there is a certain number of inventions which are protected in the same way as those inventions which he has been examining, and he cannot get at the information in that way.

1106. Supposing a man to come in July, and make application for a patent, and obtain his protection, he is allowed six months to perfect his specification?

Yes.

1107. Any person who applies after that time in the same way for protection would also take six months, would not he?

Yes.

1108. The first six months must expire before the second applicant would complete his patent?

Before he might find it advisable to complete his patent. If I see that there is a patent obtained for an improvement in the steam-engine, I say, perhaps that includes an invention which I wish to patent; and in order that I shall not incur the expense of a patent uselessly, I will wait till that patent is specified. Before that patent is specified, I find another patent sealed for an improvement in steam-engines. Then I say, I will wait till that is specified, and so I might wait for ever, for I should never find the course clear.

1109. Do parties generally take six months between their application and the specification?

They do.

1110. Then will not any man who comes after another always have an opportunity of finding what the specification of his predecessor is before he completes his own patent?

No; if the patent is sealed on the 1st of May for an improvement in steam-engines, another might be sealed on the 2d of May for a like description of improvement, and so on, continuing all through the year.

1111. Is there any other point upon which you wish to observe?

I think not.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Monday next,
Twelve o'clock.

Die Lunæ, 19^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

WILLIAM FAIRBARN, Esquire, is called in, and examined as follows :

1112. WILL you state what your occupation is?
I am a civil engineer.

1113. Have you been an inventor?
Yes ; I have taken out five or six patents for different inventions.

1114. In consequence of having taken out those patents, has your attention been particularly drawn to the present state of the law on the subject?
More particularly within the last three months, in consequence of the proposed alterations of the patent laws.

1115. Your name appears as one of the committee called the United Inventors' Association, for procuring the amendment of the laws affecting inventions?
Yes ; but I have not taken any active part in that committee. I am the chairman of a committee at Manchester : it was at the request of a number of gentlemen connected with the patent laws that I took the chair, not from any superior knowledge which I possessed with regard to the patent laws, though I have obtained a great deal of information since that time.

1116. Do you find that the opinions which you hold are unanimously concurred in by the gentlemen composing that committee?
There is very little difference of opinion with regard to the necessity of a change in the patent laws. The impression of the committee, and generally of most of the inventors in Manchester, who are very numerous, is, that we should give every possible facility to the working classes to come forward with new discoveries and inventions, by making the cost of obtaining a patent as cheap as possible. We went almost as far, at the commencement of our discussions, as to wish that patents in this country should be as cheap as those in America and France ; but since then our views have changed ; and we have come as nearly as possible to the proposal embodied in the proposed Bill ; that is, that the cost of a patent for the three kingdoms should not exceed 120 *l.* or 130 *l.*

1117. What induced that change of opinion ?
At the discussions which took place at several meetings, it was considered that to make patents so very cheap might load the Patent Office with a number of useless inventions ; under such circumstances, it was considered better that an inventor should pay a small sum at the commencement, in order to secure his patent ; that subsequently, at the end of two or three years, he should pay a larger sum ; and then, at the completion of five, six or seven years, a still further sum should be paid, which sum should comprise the whole cost of the patent.

1118. In considering that question, did the committee, of which you are chairman, consider chiefly the case of the inventors, or did they also attend to the question how far the public would be benefited by rendering patents cheap or dear ?

Both cases were under consideration at the time, but chiefly with respect to inventors. We also considered that any revenue absolutely arising from the patent laws

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

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laws would not be injured, or at least as little as possible, as the increased number of cheap patents would make up the difference. The whole of the committee, and all the members of it at the general meetings, were of opinion that one patent, when taken out, should extend to the three kingdoms.

1119. In abandoning the idea that patents should be made as cheap as possible, I conclude the committee did not think that every man who invented had an absolute inherent right to be protected?

No. What I have now mentioned was certainly the opinion of the meetings, both public and also those of the committee at Manchester; they appeared to have no objection, and I have myself no objection, for every man coming forward with his invention, if the invention is useful, or one which is likely to become of public utility, to have his patent on the payment of a certain sum; at the end of two or three years the utility of that patent would be confirmed by the payment of a further sum; and in case he did not come forward with that payment, his invention would then become null and void.

1120. Have you considered the two Bills before the Committee?

Yes, I have; I have not had an opportunity of considering Lord Granville's Bill so carefully; but I have looked over Lord Brougham's Bill. It is proposed that the first payment for a patent should not exceed 10 *l.*; my own private opinion, which I do not pledge myself as being that of the committee, is, that either 10 *l.* or 15 *l.* should be paid at once. I should prefer that parties should take out a patent without having six months' protection; that they should specify and take their drawings to the office, and by paying the money receive their patent; I think that would simplify the machinery of the patent laws, and give the required protection.

1121. Do you object to permitting anybody to take out a patent before he has matured his invention?

Yes; I should prefer that he should at once come forward with his invention matured, as far as it possibly can be done; then, during the two years before the next payment, he may have an opportunity of introducing amendments upon paying a further sum, say 10 *l.*, as a confirmation of his amended patent.

1122. Practically, as an inventor, you do not think you would be subjected to any injury by being prevented registering a sort of general idea which you might have arrived at before you had perfected the manner of carrying it out?

I think not. The other plan, I mean the system of registering, would lead to a great deal of litigation. I would not grant a patent for a mere idea, unless the inventor himself chooses to pay the money. If he cannot mature it before the time for the next payment, he will not make that payment, and the patent will become null and void. If an inventor be required to bring forward his patent matured, with the specification and drawings, and every thing which is necessary to give the necessary explanation, it will remove a great deal of complexity from the patent laws.

1123. Are you aware that there is a clause in Bill, No. 2, which will enable an inventor, on payment of 2 *l.*, to register his invention provisionally for six months, in order to give him a greater opportunity of dealing with capitalists, and of testing the utility of the invention?

There is such a clause, but I am not quite sure how far it would work beneficially. I take a different view of the subject, as to giving a man an opportunity of making bargains with capitalists, and pushing forward sometimes useless inventions. I consider such arguments, and the time for making them, exceedingly unsatisfactory; and you give an opportunity for other parties to come forward, hearing of such inventions, to speculate and claim them as their own.

1124. The party would be obliged, upon obtaining this provisional registration, to deposit his specification?

As far as he had matured his invention.

1125. He would have complete protection upon paying a fee of 2 *l.*?

That would give him time certainly to make any pecuniary arrangements which he might conceive necessary; and it would also enable him to improve his

his invention during that period. But suppose an inventor comes forward with a perfect invention, and pays his 10 *l.*, he receives his patent, and from that time he is protected. He would not then have time to alter his specification, and it would cause him to be careful in having his project matured before he makes the application. It appears to me that this clause would give encouragement to an inventor to come forward with an imperfect invention, neither beneficial to himself or the public. I should much prefer that a man, before he comes to ask for patent protection at all, should mature his invention.

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1126. Supposing he gave a full specification at the time of the payment of 2 *l.*, do you think it would be desirable to give him six months' protection at a very small cost?

There would be no objection to that, if he has no power to alter his specification afterwards.

1127. You object to any protection being afforded, except to a person who has matured his invention?

My idea is, that any person coming forward with an invention matures that invention as far as he can before he applies for a patent. Then, I think, he should be protected, and his patent should be valid in every respect; but if he does not come forward, and pay the extra sum of money afterwards, it would cease to exist as a patent, be cleared off the books, and become null and void.

1128. Your objection does not apply to the clause which enables a person to register provisionally, but to what you think a defect of the whole system of allowing persons to register, and then to improve their specifications during the time they are protected?

The very smallness of the price will be an encouragement to a great many parties applying for patents for imperfect inventions.

1129. Your idea is, that it would be advisable to permit an applicant to take out a patent, in the first instance, upon the payment of a small sum?

Upon the payment of 10 *l.*

1130. That a patent should be taken out which might afterwards be maintained upon further payments?

Yes; it should depend entirely upon the subsequent payments which should take place of 40 *l.* and 70 *l.*

1131. You think the specification ought to be complete in the first instance?

I think so.

1132. Speaking as an inventor, is it your opinion that there is not a period intervening between the first conception of the idea and the final development of it, sufficient to complete the specification, during which the inventor ought to be protected from other competitors, with a view of enabling him to complete his invention?

It would be a question of time, I think, with regard to six months. Instead of coming forward, as he might do, to-day, he would have six months to perfect his invention to a greater extent than he could do in the first instance. If he were at all aware that a second person was coming forward with the same idea, it might be some protection to him in the meantime; but it would be very imperfect, and might lead to litigation.

1133. It has been represented to the Committee by some preceding witnesses, that after an inventor has very clearly conceived, in his own mind, all the essential principles of an invention, there still is a period during which it is necessary for him, more or less, to divulge that invention to other parties, to facilitate him in completing the details for the purpose of the specification; and that, during that period, it is essential that he should be protected from all competitors, although his specification has not yet been completed; do you agree in that opinion?

I do not exactly agree with it, for this reason: if he has completed the idea, and has the invention distinctly and clearly in his mind, he has perfected the invention, and I do not see why he should not specify it at once.

1134. You are of opinion that it would be practicable to require a complete specification before any protection was given to the applicant?

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Provisional protection, I do not think, would work very well. It appears to me, also, that it might open the door to opposition, and probably to fraud. That is my own private impression.

1135. Are there not cases in which the inventor has completed the idea in his own mind; but, in order to carry it out, he would like to resort to numerous experiments, which require the assistance of workmen and other persons, who might be inclined to pirate his design?

I think myself that the experiments should be made before he applies for a patent, rather than after he has registered his invention. I have myself been engaged a good deal in that way, and I have found that when you are carrying on experiments of that sort, the parties from whom you require assistance are not those who are likely to take advantage of it.

1136. What was your inducement to invent?

I believe there are very strong motives for invention myself; one is distinction. We have all, more or less, a desire to rise in the estimation of our fellow-men, and a vanity of that kind is pardonable, when it leads to the advancement of science and the useful arts. Another motive is, that it is so exceedingly attractive, that, when the mind gets fairly fixed upon any discovery, there is an inward satisfaction which stimulates action in obtaining the result.

1137. Do you think you would have invented less if there had been no patent law?

I do not know whether I should or not. I think the great and powerful stimulus is to rise to distinction as an inventor. I think the same principle is in operation there as in every thing else.

1138. Is there not also a desire to increase the working or productive power of your machinery?

Yes; but I believe what is a much more powerful stimulus is, the interest arising from having the benefit of those inventions which subsequently become advantageous to the public.

1139. Do you refer to the exclusive possession of them?

No. I think there are two powerful principles in operation; one is, that you will ultimately benefit by the invention; another is, that you will rise in the opinion of society as an inventor; and if there is any great novelty attached to it, of course there is so much the greater merit: if it is a new invention, and is likely to be one of utility, the greater is the merit of the inventor.

1140. In the event of an important improvement being made, is not the inventor of the improvement generally the person applied to for assistance by the trade, even independently of the patent. If you have invented an important improvement in any machine, is not it likely that you will have a great part of the business resulting from that improvement, in preference to other people who may only have imitated you afterwards?

I am of opinion that the patent laws are of no very great value, because I have five or six patents myself, and it is not any great advantage which I receive from the patent, as a patent; but it gives me the precedence over all other parties who are not inventors of the same article, whereby, as a matter of trade, customers would come to me, in the first instance, for the machine I have invented, rather than go to the copyist.

1141. Knowing that you are the author of that machine?

Yes; I stand as the author of that machine, even without a patent; and the impression upon the public mind is that, as an inventor, I know more about that machine, and can work out the details and make it better than any one else.

1142. On the other hand, do you think that the stimulus of a patent has ever induced useful men to divert their attention from business which they do understand, and which they are competent to deal with, to pass their time in struggling to make inventions for which they have no real capacity?

I think that effect has followed as a result. They have an impression—whether it be really correct or not, I am unable to determine—that they will be protected

ected by the patent laws, and, by taking out a patent, they think they will prevent others from pirating that invention. *W. Fairbairn, Esq.*

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1143. Under the present state of the law, of course, the authors of useful inventions have suffered by any additional stimulus which may have been applied to inventing?

Yes.

1144. With regard to the body of true inventors, taking them as a whole, have they gained much by the existence of the patent laws or not, in your opinion?

I should rather doubt whether they have or not. If they once get into litigation, I think they are generally losers, instead of gainers. A great deal of the profit which would arise from patents has been lost in lawsuits; and immense numbers have had the honour of patents without any profits at all—more frequently ruinous losses.

1145. Does not it appear clear that there is more inducement to litigate in the case of a useful patent than any other?

Yes; where there is an invention that is not likely to prove of much benefit to the public, you will rarely find opposition.

1146. You have been extensively connected, in one way or another, with the progress of improvement in the manufacturing districts during the last 20 years?

For the last 30 years.

1147. Will you cast your memory over that period, and state whether, in your judgment, the general improvement and progress of the manufacturing processes there is attributable to the stimulus given by patent rights, or has it proceeded more from the natural and certain operation of human ingenuity bearing upon the various works with which parties are connected?

I think the patent laws have had something to do with it. Notwithstanding the stimulus which we were speaking of before, depending upon the honour and profits likely to arise from the new invention, I think the patent laws, if made cheap, would act as a powerful motive, as respects the impression upon the public mind, that parties will be protected by taking out a patent. It is another question whether, after a patent is taken out, they can prevent an infringement; but the very name of a patent upon any particular invention deters other people from infringing that patent, and, to a great extent, there is indirectly a protection.

1148. Is it not the case sometimes that the operation of the patent laws is to present an obstruction which prevents manufacturers introducing little improvements into their processes?

I do not think they operate very seriously in the way of presenting an obstruction to the introduction of improvements as regards the public.

1149. Do you know any instances in which patents have been bought up by previous patentees for the purpose of stifling them?

I have heard of such cases; I am not personally acquainted with them.

1150. What class of persons should you say are the principal inventors of improvements?

I think they are chiefly mechanics, and people connected with practical chemistry; for such improvements as those in candles, lamps, pens, &c., there are many patents taken out, and also in the operations of mechanical construction, dye-works and printing.

1151. Does not a very large proportion of the improvements which are made emanate from the attempts of individuals to relieve themselves, or to forward their own efforts in the conduct of their own business?

Most assuredly.

1152. Do not you think that in those cases the inducement consists in the assistance which is derived by them in their own business rather than in the benefits to be derived by them under patent rights?

I think that may very likely be the principal object which inventors have in view in the first instance, particularly those who are in business; I can give your

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Lordships an example : it is about 12 or 14 years ago that, in my own works as a steam-engine manufacturer, we had a turn-out of the boiler-makers ; I recollect it quite well ; I do not think we should have had the riveting machine had it not been for that circumstance : those men were out for three months : that department of the works was standing, and acted as a powerful stimulus to relieve myself of the annoyance, and to do without them altogether ; the result was, that in the course of a very short period the machine was perfected which now rivets boilers, bridges and other work : in the course of two days we can do as much work as we could have done by hand in two weeks ; we can put in 12 rivets by compression in one minute, with two men and a boy, whereas it takes about one minute to close in one rivet, with three men and a boy, by the hammer. The result is, that it has given us a degree of despatch and facility in the manufacture of those articles greater than we ever had before. I had no reference to the public in doing this : I wished to relieve myself from what I considered an act of great injustice ; and the object I had in view at the time was to be independent of unions and combinations ; the result was, that we produced a machine the use of which has now become almost general throughout the country.

1153. Do not manufacturers in such cases frequently receive assistance and suggestions from their workmen ?

No doubt we are all largely indebted to each other for discoveries of that kind ; an idea applied to any particular subject may sometimes suggest its application to another subject of a similar or dissimilar description.

1154. Is it not the case that workmen are very apt to consider the inconvenience which they practically meet with in manipulating whatever is before them, and to attempt to remove it ?

Yes ; in the manipulation of the workmen, you often see a great many processes which you can improve.

1155. You stated an opinion in favour of a charge of some amount being made for a patent upon the ground of its being the means of protecting the Patent Office from being encumbered with useless inventions ; what do you conceive to be the evil arising from granting patent rights for useless inventions ?

I have no objection to granting patents for as many inventions as inventors choose to come forward with ; if they are useless inventions, they will soon cease to exist ; and in the course of two or three years, when a large sum becomes to be paid for them, they will be cleared off the list, and disappear.

1156. The absence of any objection upon your part to patenting useless inventions depends upon the assumption that there is an effectual measure for clearing off those useless inventions from the patent list ?

My only reason for raising the price, in the first instance, would be, that I think it would save a considerable degree of expense, and to some extent deter the introduction of useless inventions ; parties would not come forward with ridiculous or absurd inventions if they had to pay 10*l.* ; but if they pay only 2*l.*, it is worth their while to make the experiment, and to load the list of patents with things which ultimately would have to be cleared off again. A multiplicity of patents granted for useless inventions may be liable to cause obstruction to the further introduction of really useful inventions ; and the difficulty in reading over the specifications to see what has been done by others is very great. The immense influx of patents at a very cheap rate would clog the list to such a degree as to prevent a *bona fide* inventor coming forward, not knowing but that he might have been anticipated by some other inventor.

1157. So much money being now spent in advertising, would not reducing the cost of a patent to 10 *l.* induce persons to take out patents merely for the purpose of advertising anything they wished to sell as a patented article ?

Yes ; it might be so ; but in time it would cure itself.

1158. Do you see any advantage in requiring three distinct patents to be taken out for the three kingdoms ?

No ; I do not see any objection, and would much prefer the amalgamation of the three kingdoms in one patent.

1159. Do you think that a patent should date from the day of the application ?
Yes.

1160. In

1160. In all cases?

The moment a party lodges his specification and pays the money, he ought to have a patent; that is my impression.

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1161. Has it been at all the practice to make high charges for licenses for the use of patents?

In some cases it has been so; but it has always defeated its own object. I think most money is made by inventors where they grant licenses at a cheap rate, and for small amounts.

1162. In the case of a party wishing to prevent the use of a patent, are you aware of any inconvenience arising from the high charges which he may make for patent licenses?

I think it is the interest of the party, if it is a good patent, to extend its usefulness as far as possible; I think the natural working of the thing would be to grant cheap licenses, and I believe that is always found to be the most profitable.

1163. Are you not aware that sometimes it has been the practice to make high charges for licenses, with a view of preventing the use of the patent?

I have heard of such cases; I am not acquainted with them from my own knowledge.

1164. Are you of opinion that there would be any advantage in fixing by law a maximum rate of charge for a license?

I do not know how that would work; I should rather be disposed to leave it to the parties to make their own bargain; it would be very difficult, if not bad policy, for the Legislature to fix any such amount.

1165. If the present complicated system were simplified, would there be any circumstances in which inventors could take out their own patents without employing professional agents at a considerable expense?

I should think so; but it would be very difficult in most cases to do it. The greater number of inventors are totally unacquainted with the laws affecting patents, and they must go to some agent or other in order to secure the patent. There are a great number of inventors who are open to heavy charges under such circumstances, not knowing the principles upon which patents are granted; that is the case under the present law.

1166. Do you think that any improper use is made of the facilities for opposition under the present system?

There are other gentlemen who will give evidence on that point, and who have had a great deal to do with opposition to patents, who are perfectly acquainted with the system; I understand that it has led to fraud in many cases.

1167. You are not acquainted with the working of the caveat system?

No, not much; as far as I know of it, I believe we should be better without it.

1168. Do you think the Attorney and Solicitor-general require any assistance in adjudicating upon patents?

Yes; I think that if the Commission is appointed which is proposed under the present Bill for the improvement of the patent laws, it would be desirable that the Commissioners should have the assistance of some sound, scientific, practical persons, who should advise with them, in order to arrive at just and correct conclusions.

1169. Will you look at the 4th section of Bill, No. 2, and see whether you think the provision as to the deposit in writing will sufficiently meet your views?

I am a great advocate for simplicity in all these matters; I should like that a man should go to the office, take his invention, pay his money, and get his patent at once.

1170. You wish that the deposit in writing should contain a full specification of the invention?

I want him to take his specification with him.

(77.7.)

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1171. Instead

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1171. Instead of the statement in writing proposed by the Bill, you would require a full specification at the moment of the application?

Yes.

1172. What would you wish the Board to be appointed to assist the Attorney and Solicitor-general to inquire into?

I do not know how far it might be necessary to have much inquiry. There might be some cases which required investigation, and the opinion of some person might be required before the patent is granted; but assuming the system to be perfectly free and open, let parties come forward with what they consider useful, and let them be responsible.

1173. You would object, would not you, to the creation of a new patent for an invention which had already been patented?

Yes.

1174. The public would suffer from the additional term if there were no other objection to it?

Yes; I think the appointment of a practical scientific person, along with the Commission, would be useful as a reference in case of need.

1175. It appears that patent law reformers differ very much upon the point whether there should be any previous inquiry, either by the Attorney-general and Solicitor-general themselves, or assisted by a scientific body, into the circumstances of the patent before granting it, or whether there should be a self-registering clause by which any inventor, however useless his invention, or however old it might be, should be allowed to register it upon the payment of a certain sum of money; which of those do you think is the preferable mode?

I would give facilities to every person to come forward and pay a certain sum of money, and take out a patent, and he should specify and complete the patent at once; then, if another person comes forward with a similar patent, or one which seems to infringe upon the preceding one, there should be some party connected with the Commission who should come to some decision upon the subject, and point out the irregularity of the application.

1176. Would not that involve rather a minute examination?

Yes, to a certain extent.

1177. And, therefore, it would be inconsistent with allowing him to have his patent registered by an officer who had no discretion in the matter?

Yes.

1178. If all parties be allowed to obtain patent rights upon registering and putting in their specifications, upon what ground would you propose that afterwards those patent rights should be impugnable?

I would answer that question thus: if I took out a patent for any particular invention, and paid my money, and specified, and there were no previous invention of the same kind before, I consider that that should be a valid patent. If another person came forward a year or two afterwards with a similar invention, my invention would take precedence of his; under such circumstances it would be perfectly valid, while the other would not be so. Under such circumstances I think the second patent should not be granted but upon the responsibility of the applicant.

1179. You think no patent right should be allowed to remain in existence unless the invention were really a novel one?

Yes, or an invention of utility; I think all others will die a natural death.

1180. Would you leave the question as to the novelty and utility of the invention to be afterwards submitted to a jury, or would you propose that the final decision upon these points should be given by the Commissioners advising the Attorney-general?

I think that it might save a great deal of trouble and a great deal of expense to inventors if the Commissioners themselves decided in cases where it was quite distinct and clear that the man had come forward with an application for a patent which had been previously granted to another person. But in cases where the Commissioners could not properly decide, I would leave the matter to the decision of a jury.

1181. Do

1181. Do you think it would be desirable that the Commissioners should be required, before the patent right was granted, to certify that in their judgment the invention was novel and useful, and that when such a certificate was given, the novelty and utility should not be questioned with a view of upsetting the patent? *W. Fairbairn, Esq.*
19th May 1851.

Yes, after having clearly ascertained that it was a novel and useful invention, a certificate from the Commissioners or a record of their opinion might be useful.

1182. Do you think that the record of their opinion, so given, ought to be a final bar to any subsequent litigation, upon the ground of want of novelty and want of utility?

I do not know whether it would operate so far as that.

1183. Do you think it desirable that it should be made by law to operate in that way?

I am not quite satisfied that any opinion of the Commissioners, or any assistance they might call in to substantiate their opinion, would really prevent litigation.

1184. Would it be possible to constitute a Board authoritatively to state that any invention was perfectly new?

I think that would be next to impossible. Competent persons might be employed to examine the invention, to see whether a patent had been granted bearing upon that invention, and to inform the applicant that, under such circumstances, his patent would or would not be valid.

1185. Do not you think it would work more beneficially for the general interests of the public, that the validity of a patent, so far as the questions of novelty and utility are concerned, should be decided once for all by the best tribunal which could be appointed to investigate such a subject, giving their decision there, and rather than that it should continue open for investigation in a court of justice?

Yes, I think so; and if that could be accomplished, and such a power were vested in Commissioners to decide at once that a person applying for a patent had made a useful and new invention, I think he should receive protection for the length of the term, whatever it might be.

1186. Would not it require a very extensive inquiry on the part of the Commissioners to enable them to satisfy themselves thoroughly that there had been no previous invention of the same kind?

Yes, that appears to me to be the only difficulty they have to contend with.

1187. Do you think it would be possible to make such an inquiry without the assistance of some opposing party?

I think it would. I know very well that patent agents, when you apply for a patent, generally are pretty well acquainted with what has been done before, and can tell whether you are encroaching upon any previous invention. If a person came forward with any new invention to obtain a patent, it would be very useful that he should know that other persons had been there before him; and the only knowledge which could be obtained on that subject would be through the Commissioners.

1188. I understand you to think, that a preliminary inquiry, based very much upon the same principles as that which now takes place, but better conducted, is desirable previously to the granting of a patent?

Yes, I think so.

1189. And the effect of that inquiry, you think, would in many cases be to discard a number of applications for which patents ought never to be granted?

Yes, I think it would operate more as a recommendation to an inventor to desist from his application for a patent, rather than involve himself in difficulties, in consequence of being led into litigation by parties who had obtained a similar patent before him. I think the Commissioners might be relieved in that way, and also inventors benefited.

1190. Are not you of opinion, that where it plainly appeared that the invention was not new, it would be proper to refuse to grant a patent?

(77.7.)

Z

Yes,

W. Fairbairn, Esq.
 19th May 1851.

Yes, I think so ; where a case is perfectly palpable and clear, I would recommend the patent not to be granted.

1191. Have you ever been exposed to litigation in defending any of your patents ?

No, I have not ; I have held out threats, but I was indisposed to go to law, not from any impression that I could not substantiate my claim, but from the difficulty, trouble and expense involved in attending upon courts of law.

1192. Is not it the case, that in many instances the holders of patent rights are exposed to great hardship and injury from the piracy of those patent rights, the parties pirating them defending themselves by raising various pleas with regard to want of novelty, want of utility, and various other technical objections ?

Yes ; that is very frequently the case ; I have suffered myself in that way from infringements.

1193. Can you throw out any suggestions as to the best means of obviating that hardship ?

I feel that it would be difficult to do so. I may mention, as an example, that some years ago I took out a patent for a new boiler, in order to effect a more economical consumption of fuel, and for the prevention of smoke ; it answered the purpose exceedingly well. Two flues were carried through the interior, and the products of the combustion combine at the extreme end of the boiler ; the one current of gasses, passing from the furnace at a higher temperature than the other, ignites the gasses from the other furnace at a lower temperature, and by this process of alternate firing, the products are evolved without smoke. That invention was not out five months when another party, to evade the patent, brings those two currents in contact at an earlier period within the boiler itself. I gave him notice that I should bring an action against him for infringement, but he still persisted in defiance of the patent ; and the result was, that I must have entered into an expensive lawsuit, which would have cost me more than I should lose by allowing him to go on ; and, therefore, I was under the necessity of being content to take precedence of him and others as the original inventor, which I found ultimately answered my purpose much better than going to law. There are many cases of a similar character where you are subject to infringement ; and here, I think, patents are inoperative in any disputed case where you must incur a troublesome and expensive lawsuit to maintain your rights.

1194. Do you believe that that is a course very frequently pursued by inventors ?

Very frequently people are upon the watch to see whether there is any imperfection or any flaw in the clauses of the specification, and they take advantage of it, and make some slight alteration so as to evade it.

1195. In those cases the conscientious users of a patent continue to pay a slight tax, while unscrupulous persons use the invention without doing so ?

Yes ; there is a case in point, also, of a new invention which has become very general where the parties did not take out a patent ; but there were one or two other parties applied to them, who paid a license for it, as if they had had the patent ; that is, however, of very rare occurrence.

1196. Do you think it desirable that there should be one Patent Office in London ?

Yes.

1197. You spoke in an early part of your evidence of the importance of giving facility to the lower classes to produce inventions ; do you think that there are any considerations peculiarly affecting that class of persons ?

I think even the payment of 10 *l.* would not operate against an ingenious working man coming forward to patent his invention ; but I think it would deter a great many persons in humble life from coming forward with inventions which would never be of any advantage to them, who, from their want of knowledge of what other persons had done, would run to the Patent Office, on the supposition of having made a new discovery, if the payments were small, which would only remain upon the books for two or three years, and when the larger sum of money became due would die a natural death, and be cleared off the list, with many others of a similar description.

1198. Can you form any opinion as to the proportion in which the benefits arising

arising from patent rights are divided between the real inventor and the capitalist who joins with the inventor, or the capitalist who purchases it of the inventor entirely? *W. Fairbairn, Esq.*
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It generally happens, in the purchase of an invention, that the inventor and the capitalist go into partnership; they divide the profits of the invention, if it is a good one, the capitalist taking the whole of the risk; on the other hand, if the invention is not matured and brought into general use, the capitalist loses his money. In cases where the inventor has no capital, the capitalist looks to him to perfect the invention, and as a matter of business to render it profitable.

1199. As the result of your extensive personal intercourse with the progress of invention throughout the manufacturing districts, have you formed any general idea what are the proportions in which the profitable results of inventions are divided between the inventor on the one side, and the capitalist on the other?

The cases vary considerably: in many cases, where only one person comes forward as a capitalist, the profit is divided equally between him and the inventor; but all these matters are subject to negotiation between the capitalist and the inventor.

1200. Does the inventor get as much as the capitalist?

Yes; at other times they form a sort of company of five or six persons, having different shares in the invention.

1201. Can you say whether it frequently happens that the positions of inventor and capitalist are combined in the same person, or do not almost all inventions proceed from persons in humble life without capital?

They very often proceed from persons who are both capitalists and inventors.

1202. Are there many cases of that kind?

Yes, there are; in a large engineering establishment, they very often proceed from the working partner.

1203. Which is more frequently the case, that inventions are produced by some persons concerned in the management of the works, or by some of the workmen?

Generally, in large establishments, by the working partner, from the circumstance that there is always one of the partners who takes a laborious part in the manipulation of the whole of the process of manufacture; and very frequently it occurs that he becomes thoroughly acquainted with the whole of the process; and from his great experience, and a desire to expedite the work, he becomes an inventor.

1204. You think that that is of more frequent occurrence than that an invention is made by a mere workman?

Yes; in other cases where the works are managed by a foreman or a manager, inventions very often emanate from them.

1205. Very often important inventions proceed, do not they, from an accidental idea suggesting itself to the mind of a workman?

At times that is so; but I do not think those cases are so numerous as many persons imagine; they often arise from the necessity of the case.

1206. That suggestion being made by the workman to obviate an inconvenience to himself?

Sometimes there are cases, especially where a workman is employed on piecework, in which, to save his time and labour, he suggests improvements which are adopted by his employer.

1207. Is not the ordinary arrangement in the manufacturing districts that the concern is constituted of a capitalist and a person taken into partnership with him, on account of his supposed mechanical ingenuity and skill?

Yes.

1208. That person having, in many cases, been previously a workman and a foreman before he became a partner?

I think, in the great majority of cases in the manufacturing districts, you will always find what they call the working partner to have been originally a work-

W. Fairbairn, Esq. man, who, by his industry and careful attention to business, has progressively advanced, step by step, till he has become the junior partner.
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1209. Generally speaking, you think the inventions emanate from the working partner?

Yes, that is certainly my opinion. When Mr. Roberts first came to Manchester, Messrs. Sharpe took him by the hand, and he was employed by them for some time, and afterwards became a partner, and many of our most useful inventions have emanated from Mr. Roberts.

1210. Do you think that the workmen would be more completely in the hands of the capitalist without the system of patents?

I do not attach much value to the patent laws; but under a system in which there is no patent law, I do not think the workmen would be more independent; they could not protect themselves under those circumstances, because any person might use their inventions; if a workman brought out an invention, any other person might take it up immediately if there was no law to protect the inventor.

1211. Would not a manufacturer generally reward a workman who could inform him of a more speedy way of getting his work done?

As a natural inference, one would suppose it to be so, but it is not always the case; I have known cases where the manufacturer has taken the advantage of the workman and used his patent, and has not remunerated him except by a very small sum indeed.

1212. Do you see any objection to there being one office for patents for the whole kingdom?

No; I think it would be desirable to have one office in Edinburgh and another in Dublin, in addition to that in London; there is less need for it now since the introduction of railways, but it might save the expense of a journey to London.

1213. So that in the office in Edinburgh, a patent should be granted for the United Kingdom in the same way that it should in the London office?

Yes.

1214. Do you think it would be as easy to constitute the necessary Boards in those cities as efficiently as you could constitute them here?

Yes, I think so.

1215. Would not there be danger of some incongruity of practice being introduced?

I am not the most competent judge as to how three distinct Commissions might work; but I think there should be a branch office in Edinburgh, where an inventor in Scotland might take out his patent, and it might be sent up here to be confirmed; and so in Dublin for Ireland.

1216. Do you think there is any necessity for protecting persons who import foreign inventions from abroad?

I believe a great deal of mischief has arisen under the present patent laws from that circumstance; but what should be the means taken to prevent it, I am not prepared to state.

1217. What is the nature of the mischief which has arisen?

I think a number of patents are taken out abroad, and brought here by agents and people of that class, in cases in which there have been similar inventions in this country before; and these patents are advertised and pushed forward on the public detrimental to the interests of the real inventor.

1218. Supposing that advantages accrue to the public under the present system, arising from giving a stimulus to invention, and rewarding the inventor for publishing his secret; does that consideration apply to a person who does not make an invention, but who merely imports something which he has seen in a foreign country?

I should say that it would be desirable to give facilities for importing new discoveries and foreign inventions into this country.

1219. Do you think that that consideration is such as to justify a monopoly being granted to a person who has only brought over to this country what he has seen in a foreign country?

If

If he be not the inventor, there may be an understanding between himself and the inventor. *W. Fairbairn, Esq.*

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1220. Assuming the case of an important invention made in a foreign country, say in Germany or the United States, and actually in operation there, do you not think that the ordinary competition between different individuals in this country would afford a sufficient security for the introduction of that invention into England, or is it desirable to stimulate and encourage the introduction of such an invention, by giving to the party first bringing it into this country some patent right?

I am not quite prepared to answer that question; it is a subject which I have not considered. Suppose a person having come from America, and having seen an invention at work there, which would be of great public advantage to this country, applies for a patent, he is the first person to introduce it, and he is entitled to protection. Being the first person to introduce a useful invention into this country, he is entitled at least to some degree of protection; but he could not, under those circumstances, be considered as the inventor.

1221. The object of the 12th clause, in Bill, No. 2, is that the use of an invention abroad shall have the same effect as its use in this country in preventing any one from taking out a patent for it?

I must draw this distinction in the case of an invention which is already known, and which has been published and in actual operation abroad, and a new invention, which has not been published; I do not think it would be just to grant a patent to any person in this country merely because he saw that invention abroad, and found it in actual operation; the two cases are different.

1222. The great facilities of inter-communication now in existence leave very little merit to the mere importer of a patent?

Very little; still if this invention were entirely novel, and likely to be of great public advantage, and the person came over here just as it was brought out abroad and introduced it, I think he would be entitled to protection; I have not, however, directed my attention much to this part of the subject.

1223. Do not all manufacturers in a large way of business endeavour to obtain a knowledge of whatever improvements are made in their own particular line in any part of the world?

Yes; but their knowledge is exceedingly limited; they are not acquainted with what is done in other countries, and a great many are not acquainted with what is done in this country; the great evil is, that they do not make themselves acquainted with the actual progress of the useful arts, even as it applies to their own business.

1224. Are the specifications of patents published in America?

I believe so.

1225. An invention having been produced abroad, and having thereby once become public property, would not the effect of granting a patent for it be to make that a monopoly which was before free to all the world?

It would be giving to an individual a monopoly, under such circumstances, of that which belongs to the public; if an invention is well known and published in another country, and another person comes over to this country and takes out a patent for it, you give that man a monopoly at the expense of the public, which, I think, is wrong.

1226. Do you think it would be a desirable thing to have proper indices of all patents made and published?

I have no hesitation as to the advantages of such an arrangement; I think there should be a Record Office, where patents could be carefully deposited and alphabetically arranged, so that the public might have facilities for knowing what is doing, and every inventor might have an opportunity of judging how far his patent is an eligible one to be granted or not.

1227. Generally, you think as much publicity should be given to inventions as possible?

Certainly.

1228. Do you think it possible to draw up such an index which should set forth the specifications in such a manner that a search might easily be made by

W. Fairbairn, Esq. an inventor to ascertain whether the invention which he was employed about had been patented before ?

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I think the specifications might be classed, so that you might at once lay your hands upon any patent you required.

1229. You would propose that they should be arranged according to the various classes ?

Yes, according to the various classes.

1230. Are not some of those classes so very general, that the number of specifications included under them would be almost unlimited ?

No, I do not think they are ; I believe all the leading subjects of patents might be classed and subdivided afterwards in such a way as would lead at once to the particular invention which you wanted to examine, and not only so, but if you have a number of inventions coming close to each other, there might be a miscellaneous list in which they might be enrolled.

1231. Would the possible incompleteness of the indices constitute any objection against your having indices as good as you can get them ?

No, I think not. I think it would be very useful to the country if we had a museum of patents and inventions ; let them be placed in the Crystal Palace (if it is made permanent), or anywhere else where the public might have access, and could go and trace the progressive improvements which have taken place in mechanical science, and where we could have the whole improvements and inventions of this and other countries before us.

1232. Can you give the Committee any idea of what the number of existing patents may be ?

I have no conception of the number.

1233. You think that there should be a model deposited of every new invention ?

Yes ; it would not only be exceedingly attractive, but very instructive, if we had a museum in which we could see models of different inventions, and trace step by step the progressive improvements which have been made from the first origin of the patent laws up to the present time, and this to be perpetuated.

1234. What do you suppose would be the size of that museum ?

I think the Crystal Palace would be large enough ; it would be a book in which every person could read, and I think it would be very useful, and of great public utility.

1235. Is there anything further which you wish to state to the Committee upon this subject ?

I do not think there is any other point upon which I can give useful information. Other witnesses are now in attendance much better qualified to give evidence than I am.

The Witness is directed to withdraw.

R. Roberts, Esq.

RICHARD ROBERTS, Esquire, is called in, and examined as follows :

1236. WILL you be so good as to state what your occupation is ?

I am a civil engineer, my Lord.

1237. Have you considered the law of patents ?

Some years ago I gave a good deal of attention to the subject.

1238. Have you taken out any patents yourself ?

Yes, my Lord, several ; 13 or 14, I think.

1239. Will you state what your opinion of the working of the present law is ?

There are several things connected with the present law of which I do not approve. The first is the caveat system ; I think that presents an opportunity for unprincipled men to make a very improper use of the inventions of others.

1240. Will

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1240. Will you state how that is done?

There are various ways adopted. A little time ago I applied for a patent; another person who had a caveat, immediately, upon receiving notice of my application, came up to London, as he afterwards informed me, and told his patent agent the state of alarm he was in, because I was engaged on the subject for which he contemplated obtaining letters patent. His agent asked him who was my patent agent; he answered, "Mr. Barlow, of Manchester." "Oh!" said the agent, "I can get it a week before Mr. Barlow can;" and he did obtain it a week before him. The result is, that he has claimed two inventions, which I had really claimed in my incomplete specification; but knowing that he was a few days before me, I employed a person to go to the Inrolment Office as soon as his specification was deposited, to ascertain for me what there was in it. I found that he had claimed two things which I had claimed, so that I had to strike them out of my specification.

1241. How was he enabled to claim those two inventions?

I am not aware how he got hold of them; but through receiving notice that I was applying for a patent, he obtained one before me; he may have contrived them, but he may also have picked them up from me, for we met by chance in the Inrolment Office, when I was there looking over a specification on the subject of which we had some conversation.

1242. According to the account which you give, this person had entered a caveat prior to your making any application for a patent?

Yes, my Lord.

1243. Consequently, you must have considered that he was intending to bring forward some discovery on that subject?

I think that does not follow. I knew a gentleman who used to boast (I have heard him do so many times), that he kept three or four caveats constantly running, which were so worded that they would cover almost every thing.

1244. Supposing a person, not having any discovery on hand, nevertheless enters a caveat on a particular subject; in the event of a person who is really an inventor applying for a patent, a man who has entered the caveat merely gets notice; is not that the case?

It is, my Lord.

1245. If he, then, has no real invention on hand, how is he, by merely getting that notice, to injure you, inasmuch as he must there and then bring his specification also into the office in opposition to yours?

Parties often employ persons to ascertain what you are doing; they may send a man to ask for employment in your establishment, and he may pick up a knowledge of what you are about; the means of doing so are numerous.

1246. You merely mean that it is by fraudulently getting possession of your secret, that the evil is done?

Yes, that is one way.

1247. Take the case of a *bona fide* inventor really having made a discovery, but not yet having the details so completely in his mind as to apply for a patent, he may enter a caveat merely to protect his discovery; do you think that such a person as that ought or ought not to be protected?

I do not enter caveats or oppose applicants for patents. I object to the caveat system, and do it on the following grounds; namely, if patents were cheap, they would be applied for as soon as the invention is made, and consequently caveats would be quite unnecessary. When a person deposits, as he should be required to do, a brief specification of his invention, if the deposit were sealed, and the seal to remain unbroken till the full specification were deposited, I think he would have the best protection practicable. I also object to the caveat system, on the ground, that to a real inventor it is very frequently sufficient for him to know where a want exists, to be enabled to supply it. I, therefore, would not injure the interest of the first inventor, nor that of the man who conceived the first idea of something being wanted in a particular department, by throwing the discovery open to the world. I believe that, in fairness to the man who brings forward any new thing, the publication of it ought to be left

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until he lodges his specification, and if patents were cheap, his being occasionally anticipated would be no great hardship.

1248. The last witness stated, that he thought it desirable that nobody should make an application for a patent without depositing a full specification, and that that would work no hardship to inventors; is that your opinion?

I do not see how it would be possible, especially to men of small means, who would have to employ others to make the drawings and specification, whilst the inventor would have to attend to his ordinary occupations; I do not think many men work harder than I do when I have a thing of that description in hand, yet it is as much as I can do, when the drawings and specification are voluminous, to get them out in six months, in which time the secret may ooze out to my disadvantage.

1249. You think that you require previous protection?

Certainly, my Lord; we cannot work at all openly, even among our own men, unless we are protected; I would not allow even my name to be published when I applied for a patent, because people might thereby be put on the look-out to see what I am doing, and if a man should happen to have a reputation as being a pretty good inventor, there would be numbers endeavouring to find out what he was then doing.

1250. Would not the statement you have now made be an argument for something in the nature of a caveat?

I think not; a caveat is no security; it is more like an advertisement to the world, that So-and-so is about doing so-and-so, and giving it an opportunity of trying whether they cannot beat him in the race.

1251. Would not your objection to the caveat be very much removed if the patent were to bear date from the day of the petition?

I would rather that the brief specification, the title of the patent, and the name of the inventor, should be kept secret; there are so many crooked ways of getting a knowledge of what a person is doing, that he would hardly be able to prevent his secret getting out.

1252. You think that publishing the object to which a person is directing his attention, and the name of the person, that name being well known, is calculated to direct the attention of other professional inventors to the same subject?

Certainly, my Lord.

1253. And not only to direct their attention to the same subject, but also to direct their attention to the means of purloining the views and processes of the first person so making the application?

Yes.

1254. Are the Committee to understand from you, that your objection to the caveat system would be removed if, at the time of entering the caveat, the person entering the caveat were required to deposit his specifications so far as he had then progressed in his discovery, those specifications to be sealed; and that in case of an application by another person for a patent on the same subject as that for which the caveat had been entered, the person entering the caveat should only be protected to the amount of the specifications which he had deposited at the time he entered it?

What would be the use of a caveat if it were not to give notice, as at present, that somebody was applying for a patent for a certain improvement. If such notice is to be given, all my objections exist against it still.

1255. You say that you think it very desirable that an inventor should have protection from the period of his first application?

Yes, my Lord.

1256. At the same time you say, that from your own experience you are satisfied it would be in many cases impossible for an inventor to complete his specification in a less period than six months?

Yes.

1257. Will you explain how you reconcile those two difficulties, and what system you would propose for the purpose of giving an inventor protection from the

the time of his application, and at the same time allowing him an interval of six months in order to complete his specification?

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I have here a memorandum in reference to this Bill, which will explain my view; I say that a patent ought to be granted on the applicant depositing a sealed envelope containing a brief specification of his invention, and paying a fee of 5*l.*; which seal ought not to be broken, or the name of the patentee published, before the expiration of the six months allowed for preparing a full specification.

1258. Do you mean that the name should not be known at the office?

It might be known at the office, and entered in a book with the consecutive number of the deposit. Duplicate full specifications should, I think, be deposited in order that one copy may be sent to the printer. I also think that all patents should be published as early as possible. Some years ago I wrote a little pamphlet on the subject, and sent a copy to every Member of both Houses of Parliament. In 1834 I sent a draft of a Bill to every Member also. I mention this to show that I have thought upon the subject before. Disclaimers should, I think, be allowed, but it would be dangerous to permit alterations to be made. I would let any person take out a patent for improvements on a former one, but not to alter the old one. I think it would be very dangerous to allow alterations to be made in any patent.

1259. As I understand your answer, the system you propose would be, that an inventor, wishing to apply for protection, should put in a brief specification, that is, a general description of his progress up to that point, and that that should be sealed and retained in the office?

Yes, my Lord.

1260. And that at the expiration of six months he should be required to complete his specification?

Yes; or failing to deposit the full specification, the patent to be void. In the pamphlet which I published, I gave examples of the descriptive title or brief specification applicable to several of the improvements made in the steam-engine, including those by Watt.

1261. What extent of protection would you attach to the subject of the original application during those six months?

A party should have his patent at once, the same as if he made a purchase of anything and paid his money down; but then there should be certain conditions which he must afterwards fulfil before it can be continued to him.

1262. How would you determine upon whether a patent should be granted or not, so long as the description of the invention was sealed and unknown?

The patentee should have protection for as much as is contained in the brief specification, provided it be new, and that he fulfil certain conditions, namely, pay the sum of 5*l.* on depositing the brief specification; a second sum of 5*l.* on the deposit of the full specification; a sum of 10*l.* before the expiration of three years; and perhaps a further sum of 20*l.* before the expiration of seven years; and that, failing to do any one of which, his patent should be rendered void.

1263. Suppose there were any infringement of his patent within the six months allowed for the completion of the specification, how would you have him proceed?

That is a point which I have not considered.

1264. Would not his best mode of proceeding in that case be, when he had completed the patent, to endeavour to stop the piracy?

I do not know; it would require consideration; there will be difficulty in whatever plan might be adopted.

1265. What opportunity would you give for opposition; suppose you had invented a thing, and given it to the public, what opportunity would you wish to have, or think you ought to have, in order to prevent a person subsequently seeking to take out a patent for that invention from obtaining that patent?

I think there ought to be no opposition to the obtaining of a patent. If a person infringes a patent, it is a matter to be brought into a court of law. There

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would be but few clashing patents if there were no caveat. There are many objections to the system of opposition.

1266. You wish for no previous inquiry?

No; if patents were granted for the small sum which I have suggested, there would be no great pecuniary hardship if a man happened to come second for protection for a particular invention.

1267. In fact, you think every man should be at liberty to take out a patent for anything whatever?

Yes, my Lord.

1268. And the value of that patent would remain to be tried in a court of law afterwards?

Yes; I am of opinion that that would be the most satisfactory mode of settling disputed points.

1269. Would not that lead to an infinite amount of litigation?

I think not.

1270. You said just now, that there were many objections to the system of opposition; will you be so good as to explain what the principal objections are?

One objection is, that in many cases there is no person competent to decide the question as to whether two things are so much alike as that both can or cannot be valid patents.

1271. That would apply, would not it, to all tribunals, whether there were a system of opposition or not?

The subject would be examined at greater length in a court of law. Again, I have reason to believe, that the agent of one party is sometimes called in to assist in deciding whether the invention of the second party be like that of the first or not.

1272. Would not that inconvenience be obviated if a certain number of scientific gentlemen were associated with the law officers of the Crown, for the purpose of examining into the novelty of the invention?

Not at all; I think the secret of the invention is safest in the mind of the inventor, and that no other person ought to be trusted, lest he let it out in some way or other, either by describing the thing positively, or by a negative mode of letting a cousin or a friend know how the thing is to be done; I think it much better not to give any person the chance of hurting his conscience by divulging your plans; and, besides, as there is no advantage in it, why do it?

1273. You would let a person take out patent rights for anything he chose to call an invention, he holding those rights, subject to their destruction by the proof of certain weaknesses before a court of justice?

Yes; but I have proposed that there should be several payments. Some persons have objected to cheap patents on the ground that we should be inundated with them. Now the most likely persons to invent are generally the very persons who have not money to pay a high price for a patent. Our patent list now contains a great number of very silly things, which no man, who had been long in a workshop, would ever think of patenting; and the reason is, that the patentee has money, though deficient of experience and mechanical talent: probably he thinks he cuts a figure by being in the patent list. Foremen in machine and other workshops, for instance, are the most likely men to invent, because, in the first place, they are selected as having more knowledge of their business than the ordinary run of men, as well as for being steady. In the next place, they have so frequently brought before their eyes the want of machines to facilitate their work, that they would, many of them, be able to effect considerable improvements if they had but the means of taking out patents, and the prospect of a large profit to stimulate them.

1274. Do you think that those persons are checked in their disposition to invent, in consequence of their being without the means of taking out patents?

I have no doubt that is frequently the case.

1275. Are not the principals of the firms in which they are employed usually disposed

disposed to defray the expense of taking out a patent by which they would themselves so much benefit?

They often are ; but the consideration with inventors is, what share of the profits will they require ; my partners received 7-10ths.

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1276. Practically, does not the whole risk fall upon the parties taking the 7-10ths : in the case supposed, the person retaining to himself only the 3-10ths was a person in that situation that he could not bear any portion of the loss which might arise, so that the 7-10ths which went to the capitalist were not only a share of the profit, but also a premium of insurance upon the risk ?

Of course it is ; but I cannot understand why so large a sum should be demanded for granting protection to the possessors of mental property. I think the capitalist is quite justified in requiring a large share, if the sum to be paid for the patent is considerable, because there are many chances against a patent becoming profitable. In the first place, the invention may be a failure ; in the second place, although it should be of the best possible nature, as an improvement upon an existing machine, yet in a short time the machine might be superseded altogether, which is not unfrequently the case, the object being accomplished in an entirely different way ; and, therefore, though the invention was good in its day, it becomes, in a short time, good for nothing.

1277. Do you think invention has been much stimulated by the patent laws ?

It has been stimulated, I have no doubt, but do not know to what extent. A man expecting to gain something handsome from his invention, would exert himself more than he would otherwise do.

1278. Have they ever had an injurious effect in stimulating persons who have, in fact, no inventive genius to spend large sums of money in making inventions which are perfectly useless ?

I cannot say how much of that folly is attributable to the patent laws. If patents were cheap, and a list of all patents were published, such persons would have less cause of complaint ; we have no published list at present ; and I believe that Professor Bennet Woodcroft has the only complete list in existence.

1279. Do you think you should have invented as much as you have done had there been no patent law ?

No, my Lord ; and if I had invented, the inventions would have lain by, as the bulk of my inventions now do : I have many inventions lying upon the shelf, for which I have not taken out patents.

1280. Why ?

I did not feel warranted in withdrawing so much capital from my business. I believe my list extends to nearly a hundred inventions, for many of which I have drawings, and have written descriptions of nearly all.

1281. Under a cheap system of patents, could you dispense with the assistance of a professional agent ?

As far as I am concerned they are of little use, further than going through the formal part. I make my own drawings, and my draughtsman copies them afterwards, and fills in the details, with the assistance, sometimes, of the patent agent ; I generally write the descriptive part myself.

1282. That is an unusual case, is not it ?

It is rather unusual.

1283. Even under a cheap system of patents, would not the expense always be great as soon as the application passed into the hands of a professional agent ?

By no means so great as it is now. In the first place they have to run from one office to another, often many times for the same patent ; they put a little on at every stage ; but that is not all ; at present, on account of patents being very expensive, the patentee endeavours to put a great number of things into the same specification, which he would not do were patents cheap.

1284. The difficulty of a specification very much consists, does it not, in bringing several incongruous things into one patent ?

Or a great many, which may be said to belong to the same thing. For instance, instead of specifying a carding-machine only, he would include a drawing-

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machine; and as many of the machines in the series as he can make, or fancy he can make, improvements in: some have objected to more than one invention being specified; I do not see how it is possible to avoid it; if it were for a pair of spectacles, there may be two or three inventions included in it.

1285. Is there no inconvenience either to the public or to inventors in a great multiplication of patents?

I think not; but rather the contrary. I have mentioned the subject of cheap patents, and have put down certain amounts which should be payable at intervals; my object in doing so, I explain thus: it often happens that a person, owing to his peculiar situation, finds that something is wanted; and, fancying that he has an invention which will answer the purpose, he will pay his 5 £., and before the end of six months, when the second payment should be made, he will have learnt that his invention is not likely to accomplish the desired end, and will therefore allow his right in it to lapse by non-payment; whilst a man of inventive talent could, in nine cases out of ten, have done the very thing wanted if he had been aware of the existence of that want, and therefore even those parties who would run to take out patents without being competent to invent, would render a service to the public, by calling the attention of more competent persons to the subject, who at the end of six months would get to know what he aimed at accomplishing, and what his brief specification pointed out as likely to effect his object.

1286. Does not it often happen that a great many people in the common process of their manufacture find that certain things are wanted, and a mode of supplying them occurs very nearly simultaneously?

It happens so sometimes. I could, if permitted by your Lordships, mention a case which is strongly in favour of granting patents for importations to other than the real inventors, to which system, no doubt, there are some objections. In going through an establishment in France two or three years back, I saw them doing a kind of work of which there is a vast amount done in Birmingham; I brought some of the articles home with me: in passing through Birmingham, I called upon a man who is considered one of the first in the trade there; I showed him one of the articles; he seemed much excited; he put his hand up, and said, "If any man will tell me how that is done, I will give him 100 £.;" when I afterwards told him it had been done at one blow, he said, "We could not do such a thing without 50 blows, and ten annealings:" they actually make that article at the rate of ten a minute in France, and he would not, I believe, make ten in an hour; I mention that as a reply to your Lordship's question. It was said, would not the means of doing it suggest itself to the man's mind; why did not this idea present itself to men who have served their apprenticeship to the trade, or, at any rate, to some one or other of the persons who have been in the trade in the course of half a dozen generations of men.

1287. Is not it frequently the case that several applications for patents for particular inventions are made about the same time?

It is very frequently the case that one improvement necessitates several others.

1288. Was this invention which you showed to the manufacturer at Birmingham patented in France?

I am not aware.

1289. Was it patented in this country subsequently?

I think not.

1290. Was it kept a secret in France?

They allowed me to see it.

1291. Did that communication of yours lead either that gentleman or yourself to take out a patent?

I did not explain the invention to him, or take out a patent for myself.

1292. You yourself know how to do it?

Yes; it is exactly one of those things like the egg on end; it is one of the simplest things in the world when known.

1293. Suppose you wished to take out a patent for that invention, do you think you ought to be allowed to do so?

Yes,

Yes, for a short period. I am of opinion that the early introduction of useful inventions would be highly beneficial to the country; there are some difficulties in the way of granting patents for mere importations, such as in people making a trade of importing to the prejudice of the foreign inventor; I do not know whether I should agree to it if the machine, manufacture or process were published abroad. The invention to which I referred is a mode of raising goods from plates of metal by the process called "stamping:" in France, even a common watering-can has no seam around the bottom, nor a seam up the side; the articles which I showed the Birmingham manufacturer were drinking-cups, like a horn-cup, and a glue kettle, with its pan complete: they are a deal better done than we do them, and at less than one-fiftieth of the cost, as respects labour.

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1294. You obtained a knowledge of this most important secret in France?

Yes, my Lord.

1295. Some years ago?

Yes; between two and three years ago.

1296. Since that time, this important secret is, as far as this country is concerned, a secret still?

I believe so.

1297. How do you account for this manufacturer, who was ready to give 100*l.* to anybody who would tell him how to do it, not giving one of his clerks 5*l.* to go over and visit this manufactory, and come back with the secret?

I do not know that they would allow him to see it.

1298. You stated that they made no secret of it to you?

I have some good friends in that part of the world, who are large consumers of some of their goods; I do not find much difficulty in getting access to those places; the French are liberal in showing their manufactories.

1299. Having possession of this secret, what prevented you from immediately giving your own country the advantage of it, and yourself also the profit of it, by taking out a patent for it?

I could not afford to lay out the money which the patent and the specification would cost.

1300. If there had been no system of patents whatever, and if the manufacturer had offered 100*l.* for the secret, would not that have been a sufficient inducement to you to have told him how to perform this particular process?

I do not know that it would. I have been in expectation for many years that we should have a better system of patents, and therefore have kept a good many inventions back till that time arrives.

1301. I am supposing the case of there being no patents in existence; would there not have been a sufficient inducement to you to have received 100*l.* from that manufacturer, and to have disclosed the secret?

I cannot say whether I should have felt disposed to have disclosed it or not.

1302. I suppose you would have done so, as it would have been a benefit to him and to the public at large, unless you thought you could obtain a greater benefit yourself in some other way?

Perhaps I should; I have brought out a few of my inventions without taking out patents for them; therefore it might be said by some that inventions would be brought out without the stimulus of the patent laws; but it should be remembered, that no very complex machine would ever be brought to maturity, except the inventor were in the expectation of some considerable remuneration for his labour; the self-acting mule, for instance, is one of my machines; that cost a large sum of money to perfect.

1303. Was the hope of being able some day to make a greater profit of that knowledge which you obtained, as you say with respect to this French invention, the only reason why you did not communicate it to the person at Birmingham of whom you spoke?

No; the reason was this: when he said he would give 100*l.* if any one would tell him; I said, "I will tell you for nothing;" I was about to proceed to tell him; I had paper and pencil, and was sketching it, when he said, "That is something like ours; come this way and look." I had previously asked him to

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permit me to look at his establishment ; I had often seen that kind of establishment before, but, as he had the reputation of being a first-rate man in his line, I wished to see what improvements he had made. Whilst looking at his tools and machines, I saw that they were very imperfect things, and recollecting that, as I thought he would not have allowed me to have seen them if I had not shown him the French goods, I determined, if he said no more, I would not mention the French process again ; and it so ended.

1304. Since that, you have thought it worth while to keep the secret ?
 Yes.

1305. You hope some day to be able to make a better use of it ?
 I have not given much consideration to the subject.

1306. Is not it the fact, that this invention was one which is out of the ordinary line of invention to which your mind and attention are directed ?

I am not quite sure that I have any particular line ; I have been engaged in so many.

1307. Have not your inventions principally had reference to machinery used in the cotton process ?

Not principally ; that is one of the subjects to which I have attended.

1308. Supposing by the new law patents are reduced to a very moderate price ; may we hope to have the benefit of that secret which you have brought over from France ?

What I have thought about it has been to this effect, that if patents were to be obtained at a moderate price, and patents for the importation of improvements were allowed, I would go over to France, and get the parties to furnish me with drawings of everything connected with the process, and give them one-half of the profit, or something of that kind, for their trouble.

1309. Do you find great difficulty in getting your inventions, however useful, into general use ?

Yes, on the average no patent begins to pay under a period of from seven to ten years.

1310. Do you apply that observation even to improvements in the machinery used in cotton spinning ?

Yes ; I apply it generally when the cost of the patented article is considerable.

1311. Do you mean to say that there are many improvements made in cotton machinery, which are productive in their results to the parties using them, that are not extensively adopted within less than seven years ?

I mean to say that they are not productive generally to the inventor sooner ; there may be some few exceptions, but I think they are very few ; patents are generally nearly run out before they begin to be remunerative.

1312. You have been now speaking principally of mechanical inventions ; do you think that your observations would apply equally to chemical inventions ?

I am not acquainted with chemical subjects. In the case of my self-acting mule, which was patented in the beginning of 1825, I showed it to some of our first spinners, and pointed out to them that the cost of the mule, the patent right which I demanded, and the expense and loss of time in fixing up, would be repaid to them at the end of from 12 to 18 months at the utmost ; they replied that they were as well off as their neighbours, and would not be the first to make the experiment ; in many cases the mule did as much as 50 per cent. more than the old mule did. The work was much better done, the quantity of waste much less, and the article spun fetched more money in the market ; so that the saving by the use of that machine was equal to the whole cost of spinning, including piecing on the hand mule ; therefore if a man would spin for nothing, and find his own piecers, the master could not afford to keep him, because the self-acting mule did its work more economically, all things considered, and yet the invention was nearly ten years before we received any remuneration for it beyond our outlay.

1313. Have you taken out a large number of patents yourself ?

I think

I think as many as 13, either conjointly with my late partners, or on my own account. *R. Roberts, Esq.*

1314. Have you ever incurred any litigation in consequence of them?

We had a chancery suit with the Oxford Road Trust Company.

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1315. What proportion of those 13 patents have been taken out by yourself, independently of other persons?

I forget how many I have taken out since I left Messrs. Sharp; they were all taken out in concurrence with them before.

1316. Would the proportion be about half?

I think not more than five or six.

1317. Taking into consideration the litigation which you have had to encounter; have you derived benefit, or otherwise, from the patents you have taken out?

Yes; I have derived benefit from some of them.

1318. Have your applications for patents been opposed in any instances?

Two of them have been opposed; but in both instances my patents were allowed to pass: in one instance, as the object of my patent would mainly have benefited one particular concern, the Electric Telegraph Company, I thought they stood in their own light so much, that I did not choose to help them: I believe that I then had a better apparatus than they have yet got for transmitting intelligence, although some years have elapsed since that time.

1319. Were you satisfied with the mode in which the inquiry was conducted by the Attorney-general?

As far as he was concerned, I was.

1320. Did he appear to enter into the merits of the case, and to be conversant with the details, so as to form a satisfactory opinion upon the novelty of the invention?

He called in a person to assist him.

1321. What description of person?

A patent agent.

1322. Should you be desirous of removing that jurisdiction from the Attorney-general?

Certainly, I should; I mean to say, that there are many inventions which no Attorney-general, or any other man, would be competent to judge whether they were really good; and as to the question whether a particular invention be similar to another for which a patent might be applied, that difficulty would be removed if patents were rendered cheap, a brief specification being deposited under seal.

1323. If it were left to you to constitute a tribunal for the adjudication of those matters, how would you constitute it?

I do not see how it is possible to constitute a tribunal which would not be very objectionable; in the first place, those most competent to decide, could not afford time to attend to such matters; therefore such things would soon become matters of routine, and be left to some one of the clerks.

1324. I understand you to say that you would not constitute any such tribunal, but allow patents to be taken out upon a mere application for them?

I have seen so much of the working of these things, that I have no faith whatever in such inquiries?

1325. Would you not invest any tribunal with the power of inquiring into the merits of a patent?

No, my Lord.

1326. The patent should be granted as a matter of course?

Yes.

1327. Looking to the supposed impossibility of which you have spoken, how can the courts of law decide upon the infringement of those patent rights?

The parties interested would take great pains to muster up evidence to support their respective cases, and would have an opportunity of refuting erroneous evidence, which is not afforded to them on "opposition."

(77. 7.)

A A 4

1328. You

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1328. You think that a judge and jury would be more competent to decide in such matters than the law officers of the Crown, assisted by assessors, or any other tribunal you can suppose?

I think so.

1329. Would not it be a hardship upon an inventor who, without any very great means, has taken out a patent for an invention which he has made himself, to see a host of persons afterwards taking out patents for exactly the same invention, to which they have no right, and which he is obliged to resort to litigation to prevent?

In most cases, I presume, if the parties were shown the specification of the original invention, they would themselves see that to work their patent would be an infringement, and would, as honest or as prudent men, cease to use it, except under license.

1330. You say that there is a great deal of fraud now carried on under the caveat system: would not the same fraudulent persons who now enter general caveats, take care to obtain patents with certain dissimilarities from the patents which had previously been issued, for the mere purpose of forcing the original patentees to a compromise?

I cannot say what might be done in that way, but believe that one of the most effectual checks that can be given to those fraudulent practices will be to keep the name of the applicant for a patent secret, and his brief specification sealed, until the full specification shall be due.

1331. In making any great change in the law, we are obliged to contemplate what will be the probable consequences; is not it likely that that would be the case in many instances?

Perhaps it is; I do not see how it is possible to constitute a system in which a dishonest man may not find a loophole. There have been two cases decided recently in our courts of law, which I would beg to instance, to show that, notwithstanding all the pains that the parties most interested bestow to prove the originality or otherwise of an invention, the fact is not always arrived at. I was asked to attend as a witness in one of the cases, but succeeded in begging off; I subsequently regretted that I did not go, as the man was defeated, and had to pay very heavy damages, although I had the very article in my possession which would have saved him, as it had been publicly at work many years earlier than was necessary for that purpose: in the other case I had made a number of articles identical in principle with those which the person was defeated for infringing; mine were made more than 10 years before the patentee had obtained his patent, so that even in the courts of law you do not always arrive at the whole truth, but have a much better chance than you would have before any Commission.

1332. You think that under any system the true inventors would frequently be deprived of their rights; whereas fraudulent inventors would have a certain protection given to them?

If patents were cheap, the first inventor would immediately take out his patent; and if he could show that a patent of later date was so like his that it was really an infringement, I think some cheap process of law might be devised that would give him a remedy.

1333. Is there any thing else which you wish to state to the Committee, either with respect to the working of the present law, or the proposed amendment of it?

I think that granting a patent is an extremely simple business; and that the "Patent Law Amendment Bill," in its present form, is very inferior to what it might be if stripped of what, in my humble opinion, are antiquated and worse than useless forms. In mechanical pursuits the man is seldom a very successful inventor who takes it for granted that certain parts of a machine are unsusceptible of improvement. The proper way to proceed is, first, in my opinion, to consider what is wanted, and then to supply that want in the simplest manner. In law-making I think the same rule ought to be adopted; in this case I should say that inventions are essential to the prosperity of the country, and therefore that inventors should be encouraged to bring forward their inventions; the question then is, how can that be best accomplished: not by making it a tedious, cumbrous and expensive process which they must go through before they can benefit the public without perhaps

perhaps ruining themselves, but by rendering it as simple as possible. If I were to put twice as many wheels or levers into a machine as were necessary, persons in Lancashire would not purchase it.

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1334. Your object is exclusively confined to the encouragement of invention?

Yes, believing that inventions are of immense service to the country, and that nothing is so likely to promote invention as the security which is given by letters patent. The planing machine, which is my invention, effects a vast amount of work, compared with what could be done with the chisel and file; it also does a great variety of things which the file cannot be made to do; consequently it enables us to use machines which could not otherwise have been brought into use, on account of their enormous expense. The key-groove and paring engine is likewise mine; that also effects a great saving of labour, and does its work so much better, that it lasts many times longer than it would do if it were done in the old way; and again, it enables you to be independent, to a certain extent, as the planing machine does, of skilled mechanics, who are very apt to turn out when trade is brisk. The self-acting mule was made in consequence of a turn-out of the spinners at Hyde, which had lasted three months, when a deputation of masters waited upon me, and requested me to turn my attention to spinning, with the view of making the mule self-acting. I said that I knew nothing of spinning, and therefore declined it; they called a second time, that was, on the following Tuesday; I declined again; but before seeing me on the third Tuesday, they saw my partner, the late Mr. Thomas Sharp, and requested that he would do what he could to induce me to turn my attention to it; on the third visit which they made, I promised to make the mule self-acting. The consequence of this has been, that the turn-outs have almost entirely ceased in the spinning department. If the hand-spinners ever turn out now, they are seldom allowed to resume work.

1335. Do you usually take out your patents for the three kingdoms?

No, I have only done so in three or four instances. An Irish patent is the most expensive, and seldom of any value when you have it.

1336. Do you think it desirable that one patent should extend to the three kingdoms?

Yes, my Lord.

1337. You have taken out patents in Scotland?

Yes.

1338. How have you found the process there; is it easier or less expensive than in England?

You generally take out your English patent first. There is seldom any opposition in Scotland, if you escape opposition in England.

1339. The fees are less, are not they?

Rather less.

1340. What amount do you calculate a patent costs in general?

For the three kingdoms it costs, including the stamp duty, specification and enrolment fees of a complex machine, or system of machines, from 500 *l.* to 600 *l.*

1341. To what amount would you reduce the expense?

Five pounds, I think, should be paid when the brief specification is deposited, 5 *l.* when the full specification is deposited, and 10 *l.* before the expiration of three years.

1342. Those fees would not, of course, include the cost of professional assistance in drawing up the specification?

No, they do not.

1343. Is that the whole charge which you would impose?

Yes; unless it should be thought advisable to make another charge at the seventh year.

1344. In the event of the renewal of a patent, what should be the sum payable according to your view?

I would not have many renewals.

1345. Do you think that 14 years would be a sufficient term for a patent?

(77. 7.)

B B

No.

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No, it is not sufficient; very few patents do more than pay their actual expenses in 14 years now. I think the term should be 20 years. In an article which I wrote conjointly with two other persons, we put down 15 years. I reluctantly assented to that term, because one of the parties would not sign the article without it, on the ground that the Legislature would not grant more.

1346. Would you put all inventions upon the same footing as regards the term of the patent, irrespective of their relative merit?

Yes; it is impossible to judge of their relative merits.

1347. Probably nothing can be more widely different than the merits of the inventors of different inventions?

Certainly; and those inventions which pay the best, are very seldom those which have required the most thought, and the greatest amount of application to mature. I think, under certain restrictions, it would be desirable to grant patents for the importation of inventions.

1348. You would grant patents in such cases for short periods?

Yes, for seven or ten years: in the watchmaking trade in France they do their work in some departments very much better than we do it, I mean especially in making the movements; they also do it very much more rapidly, at least 20 times more rapidly; the difference is enormous.

1349. Is that a secret in France?

I do not know that it is a secret; people get to see it; the French also make "wood screws" much better than we do, both of which processes I think it would be desirable to import.

1350. Have you taken out any patent in France, or any other foreign country?

Yes, a few in France.

1351. Have you found the process there more easy and inexpensive than it is in England?

I have paid the amount of the charge to my patent agent here, and I have had the patent without any further trouble.

1352. Is the cost as great as it is in England?

No, it is much less.

1353. Is it more easy to defend your patent rights from infringement in France than in England?

That I cannot speak to.

1354. You have never had yours pirated?

No.

1355. You were asked some time ago as to the utility of the patent system with reference to the stimulus it gives to invention; are you of opinion, from your knowledge of the subject, that it has any effect of this kind, that is to say, in preventing the withholding or keeping inventions secret, when they have been made, from the rest of the world?

Parties work their inventions in secret sometimes; but there are really very few things which can be worked in secret to advantage.

1356. The question would, perhaps, apply to a branch of discovery, with which you are not possibly very conversant, namely, chemical improvements; would not it be more possible in those cases to keep the invention secret?

Yes, I believe it would.

1357. Do you conceive that if the patent system were entirely abolished, there would be a greater temptation to inventors to keep their inventions secret?

Yes, I think there would; but it would have another injurious effect upon trade; I think there was but one planing machine in England for six years after I constructed the first; and I furnished the drawing of that to my friend: the key-groove engine, I think, was nearly nine years before it was used in this country, except by my firm; I had no patent for either, and therefore had no interest in pushing them into the market; I allowed everybody to see them who happened to come to the works, but I had no exclusive advantage to expect from the sale of them; if I had made patterns for machines of various sizes, and had sold the machines to the public, other persons would have "colted" or cast from my patterns, and in that

that way would have been able to have made the articles without the expense of preparing the patterns themselves.

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1358. Would not the fact of your being in the habit of taking out patents, if you had one or two inventions, for which you had not taken them out, induce the public to think that in your estimation those inventions were not of great value?

The planing machine and key-groove engine were some of my first inventions, and are now in most mechanical establishments.

1359. Would not the public be led to entertain that opinion?

I cannot say; those inventions which I have named were my early inventions, before I had the means of taking out patents.

1360. Before the public had obtained confidence in your name?

Yes; a gas-meter was patented by Clegg, but his meter would not work; I have a gas-meter by me now, of my own invention, which was the first that would work; it was put up at the town's office at Manchester; I was called on, and requested to invent an instrument for measuring gas, and I invented and made two within the week; and should have solicited letters patent for my invention, but had not the means. When the patentees of Clegg's meter saw mine at work, they got over the difficulty they had before experienced, which was in the stuffing-box: I employed water to prevent the escape of gas.

1361. With your inventive genius, which is so well known, and having been called on at different periods, as you state you have been, to meet particular cases, is not it your opinion that you would have made those inventions even if you had not been protected by the patent laws?

I should probably have made the inventions: I have a great many inventions now for which I have not taken out patents, nor have I brought them out.

1362. In the case of the self-acting mule, would not it have been worth the while of the manufacturers to have remunerated you handsomely?

Without a patent it would have ruined me, because, after I had bestowed a great deal of labour, and expended a large amount of money upon my invention, other parties could have got the mule, and taken it to pieces, and, by "colting," or taking castings from them, have made similar mules, without the expense of drawings or of patterns, and almost without employing any intellect.

1363. Would not your establishment have had a great advantage in having the start in making those machines?

That would not have been a sufficient advantage to remunerate us.

1364. It would not have been an advantage sufficient to compensate you for the unavoidable expense which you incurred in bringing it to perfection?

No, my Lord.

1365. Would not it have been worth the while of the masters, whose object it was to meet a particular emergency, to remunerate you handsomely for your trouble?

I think it would have been; but I do not think I could have got them to do so; perhaps the best and most commercial way of remunerating inventors is by licensing their inventions.

1366. A deputation of them waited upon you to request you to devote your time to that purpose?

Yes, and when the machine was once made, they would have considered their purpose as being answered, that is, that it would have been a rod in pickle for the workmen.

1367. To induce you to bestow your time and trouble upon that object, would not they have made conditions with you?

I never found them inclined to do so.

1368. The moment that invention was made public, would not any machine-maker have taken your secret from you, and made it at a lower price?

Certainly.

(77.7.)

B B 2

1369. You

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1369. You stated that the manufacturers waited upon you, and asked you to devise such a machine?

They did.

1370. Was not it competent for you on that occasion to have made your own terms with them?

After the machine was made, perhaps I might have made some terms with them; but I am not sure that I could have done so even then. One of the parties in the same neighbourhood said, after it was done, it was a rod in pickle for them, and, therefore, till the men turned out again, he would have none; he was not one of the deputation, but he was residing in the same neighbourhood.

1371. Would not it have been desirable for him to have given a large sum of money for that rod in pickle?

They do not part with their money in that way; nobody would construct such a machine as that, unless he had some prospect of being remunerated for doing so.

1372. What is your opinion of the American system of granting patents?

I have one very strong objection to the American law of patents, that is, the requiring models to be deposited; I should have patented my last invention for weaving in America but for that; it would have cost me a large sum, perhaps 500 *l.* for models.

1373. Would models sufficient to have conformed to the regulations of the American system have been produced at a smaller rate of expense?

Much smaller than the amount I have named.

1374. Would not that have been all that would have been necessary?

I do not know how much would have been necessary; but there were so many points, that it would have cost me a great deal of money.

1375. Do you object to the Board of Examiners which exists in America?

Yes; I object to a body of examiners any where.

1376. Have you taken out any patents in the colonies?

No; but I have an invention which is applicable to the colonies, that I should have patented some years ago but for the expense of our present patent system; I would have included England at the same time, as it might have turned out to be useful in the cotton trade; I think I could dispense with one cotton machine by applying it.

1377. You think that, under a system of cheap patents, you would be encouraged to pursue that invention, and that the effect of the present system has been to prevent your giving to the public many inventions which you have made?

Certainly; the objection that some parties have to cheap patents is with me of no weight; they say we shall be inundated with them. I think that those persons who very often might be incapable of perfecting an invention, would, nevertheless, give a hint in their brief specification which might be useful, and if, from any cause, they should fail to pay the second 5 *l.*, it would be open to others to make use of that suggestion. As I said before, it is a great point to know what is wanted, and the hint may often contain the germ of an invention of great importance.

1378. Do you think that if the payment were left at so small an amount as 5 *l.*, there would not be a strong inducement to parties to continue patents in existence for the mere purpose of excluding others?

There would be a second, a third and a fourth payment, amounting all together to 40 *l.*; then there is the specification, which might be 50*l.* or 100*l.* more.

1379. You would add the expense of the specification to the second payment?

You could not deposit the specification otherwise.

1380. The 5*l.* would be merely the amount of the official fee?

Yes.

1381. Do you suppose, under the system you recommend, that an inventor, at the termination of the first six months which you allow for completing the specification, would have to pay something more than 100 *l.*?

It

It would depend upon the nature of his invention ; if it is for something very simple, 5 l. might pay for the specification ; but if it is a complicated matter, 100 l. would not pay for it ; it would not be so much more under a cheaper system as it is now, because you would not put so many things into one specification ; it would be better to take out another patent, and to take more time to specify.

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1382. That would not make any difference, would it, because five specifications for five patents would probably cost as much as one comprehensive specification for the whole ?

Yes.

The Witness is directed to withdraw.

HENRY COLE, Esquire, is called in, and examined as follows :

Henry Cole, Esq.

1383. HAVE you had your attention called to the subject of the patent laws ?
Yes, for some years.

1384. Have you been occupied in devising any means of reforming the present law ?

I have been a member of a committee, constituted by the Society of Arts, and as one of that committee, have been active in maturing the suggestions which they have published.

1385. What have you before you ?

I have certain Resolutions agreed to by a committee of the Society of Arts, consisting of the gentlemen named in the paper ; having agreed to those Resolutions, we prepared the heads of a Bill, which we thought would carry those Resolutions into effect ; but the proceedings of the Legislature for promoting the registration of articles in the Exhibition of 1851, and the appointment of this Committee, have caused the Society of Arts to suspend any further proceedings for the present.

1386. What degree of sanction was given by the Society of Arts to that Bill ?

The Society of Arts sanctioned the Resolutions, and appointed a sub-committee to draw up the heads of a Bill for carrying those Resolutions into effect.

1387. This is the work of the sub-committee ?

The heads of the Bill are the work of the sub-committee : the Resolutions upon which the Bill is based, have passed formally through the Society's proceedings.

1388. Will you be so good as to deliver in those Resolutions, and the copy of the Bill, in order that you may be examined upon the provisions of the Bill upon a future day ?

Yes I will : accompanying the Bill is an explanatory paper of the mode in which it was supposed the work would be carried out.

[The Witness delivers in the same.]

The Witness is directed to withdraw.

Mr. WARREN STORMS HALE is called in, and examined as follows :

Mr. W. S. Hale.

1389. WHAT is your occupation ?

I am a manufacturer of stearine and composite candles.

1390. In the management of your business, has your attention been at all called to the operation of the patent laws ?

(77. 7.)

B B 3

Very

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Very much so; for most of the improvements which have taken place have originated through chemists having turned their attention very much to the operations upon animal fats and vegetable oils, and, from that circumstance, patent after patent has been taken out, some of them being great improvements, but others almost useless, and completely in the way of great improvements: if it could be so arranged that a law could be passed by which useless patents should be cancelled, it would be a great advantage; when I speak of useless patents, I mean that they are useless for manufacturing purposes, unless you possess a succession of them; but if a plan could be adopted by which they could be cancelled, or a fine imposed upon them, in case of their continuance, it would be a great improvement upon the present plan.

1391. Do you think the system of periodical payment would attain that object?

I think it is very desirable: there is no doubt many of these patents which have lasted for 14 years would not have been continued so long if the parties had had to make a periodical payment at certain times during the 14 years.

1392. Do you introduce many improvements into your own manufacture?

With respect to the manufacture in which I have been engaged, the first of the improvements which have taken place in candle making, proceeded from Monsieur Gay Lussac, the celebrated French chemist; I was not the means of introducing it into this country, but I was about the second who adopted it; he took out a patent, in the year 1825, for separating the tallow of animal fats: tallow is composed of two parts, oil and a solid substance, stearine; stearine is the substance, and ealine the oil. He suggested the propriety of using spirits of wine; we found that lime would have the same effect, and allow the separation of the two parts equally well with spirits of wine, but it would not be so good a colour; the lime rather affected the colour; that manufacture was introduced into this country by M. Burjot, a Frenchman, who carried it on for three or four years, and at last failed.

1393. Did he patent it?

No; M. Gay Lussac not deriving any profit from it, allowed it to become public property; this gentleman brought over the invention, and established the manufacture in London; after he had been there two years, myself, with a house over the water of the name of Ogleby & Co., though under great difficulties, from our want of knowledge, discovered the way of manufacturing it, and have been carrying on that business from that time to the present.

1394. Had it been attempted to be kept a secret by the French gentleman you named?

It was so in the first place; but since that, the attention of the public, or, at least, some few of them, has been directed to improve upon it if they can. But I believe no patent has been taken out which has been an improvement upon it, though there has been with respect to oils. The first patent I know anything about for operating upon oils, was one by Mr. Soames, which was simply for pressure. By gentle pressure, the oil was made to separate from the more solid part; the solid part was made into candles, and the oil was used for burning; that is now altogether out of use. These stearine candles, and subsequently composite candles, have superseded altogether the cocoa-nut candles. In respect of the oils, several patents have been taken out; they commenced about the year 1834 or 1835. In 1836 a patent was taken out for manufacturing candles from palm-oil; that was done by extracting the colour, not much improving the quality. The firm worked for a time, but found it was not a profitable thing, and they discontinued it. That was in the year 1836; and in the year 1840, a chemist, in conjunction with one of the firm of Ogleby & Co., over the water, took out a patent for distilling palm-oil, not adopting the jet of steam, which M. Gay Lussac, in his stearine patent, suggested; it operated upon the oil, but it wanted a current to pass the vapour down the still. In the year 1841 a Mr. Newton, a patent agent, took out a patent for distilling palm-oil; I should say it was an effective one, but from the translator not being a sufficient French scholar, as well as from its not being worded very clearly, it adopted the suggestion of M. Gay Lussac of a jet of steam, and not only the jet of steam, but of heated steam. The steam when it escapes from the boiler, instead of passing into a still, passes along pipes which are over a fire, which is under the still itself; consequently

consequently the steam is heated much more than it is when it comes from the boiler itself. For that reason I should say it was a valuable patent; but the house of Price & Co., who are now before a Committee of the House of Commons, along with Mr. Gwynn, who had left the employment of Messrs. Ogleby, wanted to purchase this patent. Mr. Newton asked 1,000*l.* for it. They would not give that, and the consequence was, that they moved for a *scire facias*, and upset that patent. That patent, therefore, became the property of the public; but it has not been used; for Price & Co., with Mr. Gwynn, having taken out subsequent patents, we are all alarmed now at adopting any thing like the principle of distilling from palm-oil, for fear of prosecution. I suppose, with what they have purchased and what they have taken out, they possess now from 18 to 20 patents. Separately they would be of little use, but collectively it is certainly an important improvement.

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1395. Most of your improvements appear to have been derived from abroad? Most of them have.

1396. Would it have been impossible for you to have imported those inventions from abroad without patenting them in this country?

They generally take out patents for the two countries. You may have seen in the patent list a communication which implies that the invention is by a foreigner. Patents for foreign inventions are frequently taken out in this country.

1397. Are you aware that by the 12th clause of the Bill No. 2, it is proposed, that where an invention has been used and published abroad, the importer of that invention shall no longer be entitled to a patent; do you think it is necessary, in order to introduce improvements into this country which are adopted abroad, to give the protection of a patent to an importer?

I think, if it is a real *bonâ fide* and valuable invention, a foreigner would take care to secure his interest in this country, by taking out a patent in this country simultaneously with the patent abroad; in France, for example.

1398. Supposing he has not done that; do you think the manufacturers themselves would be likely to import it, or do you think it requires that a person shall be specially protected for doing so, in order to give them the benefit of the invention?

If he has not a sufficient regard to his own interest to secure it here, it is not likely to be worth much to the public.

1399. Is there any material difference between importing from abroad an invention which is in actual operation there, and copying an invention which is in actual operation in this country?

No.

1400. Is not it very nearly as probable that persons in this country will import for their own use, and carry into operation inventions which they see in actual existence abroad, as that they will copy inventions which they see in existence here?

I should say so. In my own case, if there were to be a valuable foreign invention, and I had faith in it, and the party were to come over to me, and make a proposition to me, I should feel it to be to my interest to enter into a treaty with him; if he had not secured it in this country, I should not do any such thing; then it would become the property of the public; but if he had taken out a patent in France and in England too, he would secure the benefit here, and I should be very glad to avail myself of the advantage of it.

1401. Every grant of patent rights is based upon the assumption, that, if not protected by a patent right, the invention will be copied by the public at large; that will be true, whether the invention be in operation on the one side of the water or on the other?

Certainly. The great objection which I conceive many parties have to introduce real improvements, arises from useless patents. I am in treaty now for one or two which in themselves are useless, yet they contain the germ of something, and it is worth my while, if I can get them for a small sum, to purchase them; but directly you make application for a patent of that description, it becomes

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very valuable all at once; the party conceives you are desirous of possessing yourself of it, and that you will be inclined to give anything for the use of it.

1402. At present they are obstructions to you?
 Decidedly.

1403. You say that, practically, you have found the existence of patents in themselves useless—a great obstruction to the introduction of inventions which would otherwise have been of value?

Certainly.

1404. You think it therefore important that useless patents should not be granted, or that, if granted, they should be by some process speedily removed?
 Yes.

1405. Do you think that a system of periodical payments would effect that object?

I think so, to a certain extent. I should suggest that it should be rather a large sum. If a patent is a valuable one, it is not 100 *l.* for which the inventor would lose his patent right; if it is a small sum, a person may be speculative enough to continue his patent.

1406. Do you think it is a less hardship upon an inventor to have to pay a large sum after he has ascertained the real benefit of his invention, than to be compelled to pay a large sum at the very first step?

If the invention is a good one, it is of so much importance to the person inventing it, that it is not the payment of 100 *l.* which will induce him to give up his patent. I think, to do away with the rubbish, it would be desirable that the good patentee should be called on to pay something; I will name the instance of candles; there are Palmer's candles: to show how a patentee can pay himself if it is a good invention, take the case of candles with two wicks; the patent has expired. I commenced making them immediately the patent expired; that was the means of reducing the price immediately, and there are now two candles which he has patented, the one with three wicks and the other with four, and there is a difference to the public of three halfpence a pound, which is a very great profit, of course, to him, and which I do not complain of, because he has the exclusive right; and while he has the exclusive right, the public are paying three halfpence a pound more for those than in the case where the patent has ceased; therefore it is not the payment of a few pounds which would be a hardship upon a person who has invented a valuable invention.

1407. That is a case in which the patentee is himself the user of the patent; there is another description of cases, in which the patent is chiefly employed by persons who pay for licenses; would your remark apply to them?

If it is a patent of sufficient importance to induce a person to grant licenses, it must be a very productive one.

1408. At what period would you propose that the patent should cease and determine without requiring an additional payment?

The public would soon ascertain whether or not it is an improvement upon what has before taken place; under those circumstances I should think in two or three years he might be called on to make the payment.

1409. Does not it sometimes happen that years elapse before a discovery is known and appreciated?

I think that may apply, in some cases, but in very few, according to my experience. At one time it was thought derogatory for a respectable person to advertise; but if a person possesses a great improvement, I should say that there are various ways of getting it before the public, so that the attention of the public should be directed to it.

1410. Are there not prejudices to be overcome which obstruct the introduction of a new article?

That does not apply so much at the present time as it did formerly. There is a greater desire on the part of people to avail themselves of what is really useful than there was.

1411. Would not the length of time which is required to bring a patent into general use depend, in some degree, upon the expense attending its introduction;

duction ; would not a very expensive machine require more time to bring it into general use ? *Mr. W. S. Hale.*

That may apply in some cases. Take the case of the screw propeller ; that was an expensive matter, and at the time many people did not like to adopt the principle ; but it seems now to be gaining ground very much indeed. I think in manufactures generally, the public would soon become acquainted with the merits of an invention ; a patentee would make the public acquainted with the existence of such an invention, and it would soon recommend itself. *19th May 1851.*

1412. By the plan you propose, you do not intend to deprive the patentee of the benefit of his invention ; but you would only require that after the period of one, two or three years, he should pay an additional sum to entitle him to the continuance of the patent ?

That is my idea. I should say it would be unjust to deprive a man of the benefit of his invention. What I complain of is, that there are some patents which, at any rate, are not useful : there is something in them ; but the party who took out the patent, from the want of experience in the particular thing to which he has turned his attention—for there is a great difference between a mere theorizer and a practical man—is not able to make it of any practical utility.

1413. Your object would be, that the patent should cease if there were not a reasonable hope of its leading to some advantageous result ?

Yes ; I am satisfied that a large number of patents would at once cease, if there were a periodical payment required.

1414. You consider that the existence of a patent right for a matter which is productive of no practical utility, is, in fact, injurious to the public ; and that to justify you in giving up the public rights, you are entitled to require increasing evidence of conviction on the part of the inventor, of the ultimate usefulness of the patent ?

I do. As the patent laws now exist, when once a person becomes a patentee, he generally becomes the owner of a great number of patents. There being so many patents which are useless, it is necessary to have a great many to carry on a process. Then the question is, whether these patents ought not to have ceased, rather than have them all come into the hands of an individual, who becomes by that means a monopolist. I will take as an instance the business in which I am now engaged. At present the law is, that no more than 12 persons shall work a patent. I think that is a good one ; if there is such a demand for the article which the patent produces, that 12 persons have not sufficient capital to meet that demand, the public partake of the advantages by licenses being granted ; but in the case of Price's Candle Company, they applied to Parliament for a Bill, which, after some opposition upon my part, passed, with some alteration. At that time they possessed themselves of 18 patents. They are now working them, and are now applying to the House again for three additional patents. It becomes in such cases a great hardship for a private individual to compete with a public company under those circumstances.

1415. In such a case the patent is made use of not merely as a means of profit to the inventor, but as a means of obstruction to all other manufacturers of the same class ?

Yes.

1416. Can you suggest any remedy for such a state of things ?

I cannot ; it is only for the House to adhere to the law, and not allow more than 12 people to work a patent.

1417. Could not the same system be adopted by a smaller number than 12 ?

The amount of capital required is very great.

1418. Do you think it would be generally more profitable to grant licenses, or to enjoy the monopoly ?

I think if 12 people cannot find capital sufficient to work a patent, there is no reason why the public should not have the advantage of it by means of licenses.

1419. In the case you refer to is there any difficulty in obtaining licenses upon reasonable terms ?

They would not grant a license.

(77.7.)

C c

1420. Do

Mr. W. S. Hale.
19th May 1851.

1420. Do you conceive it would be desirable that in all patents there should be a clause requiring the parties to grant licenses upon reasonable conditions?

I am not a patentee; if a person could work his own patent, I do not see why he should not have the benefit of it; at the same time, when it becomes a matter of such great magnitude that he, with 11 others, cannot work it, I cannot see why the public should not partake of the benefit.

1421. Do not you conceive that a patent right is granted to a party in contemplation of an advantage to be derived to the public through the use of his invention by license?

I think a party taking out a patent thinks very little of the public; his thoughts are pretty much fixed upon himself.

1422. A very large number of patents are taken out for the purpose of being disposed of under license to the public, and not of being used in manufacture by the patentee himself?

That is so in some cases; but if an inventor is a poor man, he is very glad to get other persons to work his patent; and if it is a valuable invention, he can generally do so?

1423. Do not you think that a patentee ought to be compelled to give the public the use of his patent, a sufficient sum being paid for the license to do so?

I cannot think he ought; I think a person has a right to his discovery for a time.

1424. You have stated that the patent for the three-wicked candle had been a very profitable one?

Yes, so the double wick was in the first instance; immediately the patent ceased, there was a reduction of at least a penny a pound to the public; there are now two patents, one for three-wicked candles, and the other for four-wicked candles, which are still patented.

1425. You said that that was a profitable patent; you also said that an invention of great merit by a French chemist had proved so unprofitable, that he had abandoned it to the public?

Yes, he did not use it at all.

1426. Which of those two inventions required the greater amount of science and skill and labour to bring to perfection?

I should say they were all derived from M. Gay Lussac; the others have been all advances by degrees from one step and stage to another.

1427. In short that is one of the great difficulties of administering the patent laws, so as to give the reward to the real inventor?

That is the case.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till To-morrow,
 One o'clock.

Die Martis, 20^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Mr. BENJAMIN FOTHERGILL, Mechanical Engineer, of Manchester,
is called in, and examined as follows :

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

Mr. B. Fothergill

20th May 1851

1428. WILL you state what is your occupation ?

I am a mechanical engineer ; I have been connected with the house of Sharp, Roberts & Co. for about 20 years ; afterwards I was partner with Mr. Roberts for five years, till December last ; now I act in the capacity of consulting engineer for mechanical purposes generally.

1429. Do you act as a patent agent ?

I do not act as a patent agent ; I am consulted upon various patent inventions ; I have never undertaken the business of a patent agent, because I have repudiated the idea altogether, under the present system.

1430. Do you advise persons as to drawing up their specifications ?

Yes ; it is only since March last that I have undertaken that department of my professional business, and that has been at the urgent request of several parties who have suffered from the disadvantages of the existing patent laws.

1431. Your knowledge of inventions generally has led you to consider the working of the present law respecting patents ?

Very extensively. I am a patentee myself of several inventions, and should have had many more patents, if I had been able to afford it. I have had to work my way up in life from a poor boy, and have not had the money for taking out patents, they were so expensive.

1432. Have you had an opportunity of reading the two Bills before the Committee ?

Yes.

1433. Will you state whether you approve of them, or object to them generally ?

I approve of them, generally speaking ; I think it is a step in the right direction, because the abuses of the old system have been such, that in fact the system would ultimately annihilate itself. I can give you a very good specimen : about three weeks or a month ago, I was consulted by a Mr. Gordon, of Stockport, near Manchester, with reference to an invention of his, for which he took out a patent in the year 1844, for introducing a current of air between the surfaces of millstones, to keep them cool while in the act of grinding, and prevent the flour from being heated ; of course, my advice to him was, that before he took any proceedings relative to the infringement of his patent, he had better authorize me to commence a search, and see what had been done before and since the date of his patent ; he did so, and I found that a gentleman in London of the name of Corcoran, had taken out a patent the year before Gordon's, for introducing atmospheric air for a similar purpose, but it was by a different mode, and limited in its operation ; I considered the two to be different modes of arriving at the same result, and obtaining the same object to a certain degree, for this reason : Corcoran, by his contrivance, gathered the air by means of projecting vanes attached to the upper millstone, which revolved with it, and thus, by the resistance of the atmosphere, a current of air was conducted down-

Mr. B. Fothergill.

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wards through apertures made in the stone, and distributed between the surfaces of the millstones, while Gordon used a fan to force the air between the surfaces from the under side; in the former case, the supply of air was limited, while in the latter, any required quantity could be forced in. As the result of my labours, I may mention that I found there had been fifteen patents taken out since 1843, including those two, for the same thing. The same houses have patented the same thing, and, in some instances, the same apparatus; in some instances they have taken Mr. Gordon's plan for blowing the air in, in other instances the identical means of gathering it with the vanes, or substituting trumpet-mouth tubes for introducing it, as in Corcoran's patent; and if your Lordships will allow me, I will hand in to the Committee the extracts which I made from the specifications on that subject, with a list of the patents.

The Witness delivers in the same.

1434. Those 15 patents were all with regard to the same principle, and some of them the same process of applying that principle?

Exactly so.

1435. Had you much trouble in making that search?

I should have had a great deal of trouble, had not it been that Professor Woodcroft and I have been very particular friends for a great many years, and I knew that he had a valuable list of patented inventions from the reign of Edward, when the first patent was granted, down to the present time. That list is classified in the following manner: it contains the names of patentees alphabetically arranged, and it also shows the subject-matter of each invention. I came to London, and went to his chambers, when he was kind enough to allow me to look over the list; it took me about a couple of days; and on referring to the various works where some of the specifications are published, I was enabled to make the extracts I have laid before your Lordships. Gordon's specification has not been published.

1436. Do not you consider that there ought to be an index of that sort publicly accessible?

That is my decided conviction; it would save a great deal of expense and labour, and, in fact, I do not see how the reforms attempted here in the two Bills are to be carried out, unless there is an index of that description.

1437. Do you consider that it was through the want of indices of that kind that those two patents were taken out for the same improvement?

I am sorry to say, I cannot answer in the affirmative: I know an instance in flax and cotton spinning, where the same patent agent took out three patents for three different houses for the same thing. One was the firm of Taylor & Wordsworth, of Leeds; they took out the first patent; the next, I think, was Cheetham & Tatham, of Rochdale; and the other was Lawson & Sons, of Leeds; there is the same thing in each case. It is patented three times over.

1438. At a short interval of time?

Between the last two there was an interval of 18 months.

1439. The temptation held out to a patent agent is to pass a patent without any very great reference to the validity of it?

Of course it is.

1440. Do you consider that the instance you have mentioned is a very exceptional case?

I do not know that there is a single house free from the practice; I could classify those which I have mentioned as being taken out by different parties; they must have had a knowledge of what had been done before.

1441. Can you suggest any efficient remedy for that state of things?

The only remedy I could suggest is what is embodied in these two Bills, with some alterations; for instance, in the Bill presented by the Earl Granville, in Clause I. we, in Manchester, want the appointment of practical scientific men, along with the officers of the Crown, to form a Board of Commissioners, whose duty it shall be to examine all applications for patents, and report upon the same. If the subject-matter has been patented before the application, then I would refuse the grant; but if not, the party should have his patent in the order for which

which a progressive number had been given at the time he made application, and the patent should bear the same date and number as the deposit describing the nature of the invention.

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1442. You are not of the same opinion as Mr. Roberts, namely, that it would be desirable for every inventor, at his own risk, to register his invention without any previous examination?

No, I am not; I think we should have nothing but confusion from such a system. Unless a clear line of demarcation were drawn, we should have everybody come for a patent, and there would be no end to litigation as the result of it. The system would be even more objectionable than it is now.

1443. What are your objections to a great multiplication of patents?

I have no objection to a great number of patents being taken out, provided the subject-matter of the invention is good, and has not been patented before. I think good patents will tend to improve the manufactures of the country; but a repetition of patents for old inventions, except for new combinations, would be useless.

1444. Do you think, besides being useless, it would be directly injurious to the public interests?

I do, to a certain extent.

1445. In what way?

It would cause the interests of various parties to clash together to such an extent, that, instead of facilitating, it would retard the progress of invention, and prevent the manufacturers from trying what might otherwise prove useful and beneficial; for instance, at the Liverpool March Assizes, in 1850, a cause was heard, *Sellars v. Dickenson*, for the infringement of a patent granted to Mr. Sellars, for a method of instantly stopping a loom by the application of a break, whenever the shuttle was trapped in its course, and thus prevent the warp threads being broken. Dickenson had a patent granted to him for the application of a break to accomplish the same object, but his invention only differed from that of Sellars in varying the arrangement of the parts of the mechanism; the result was, that a verdict was given for Sellars. The case was, however, taken to one of the superior courts, and the Judges, Barons Pollock, Rolfe and Platt confirmed the decision of the jury at Liverpool; but while this dispute was pending, many parties declined to avail themselves of the advantage of Sellars' invention, while others, to whom Dickenson had given a guarantee, were compelled to pay Sellars a license. Now, there was a principle of action involved in the invention, which to a mere theorist was not manifest, and that is the reason why I think a Board of Commissioners, constituted as I before named, should have the power of withholding a patent, where an invention has been the subject-matter of a prior patent.

1446. It has been suggested to the Committee, that, in order to avoid the insecurity under which a patentee now labours, scientific persons should be joined to the Attorney and Solicitor-general, and that their decisions should be final, and that a patent once granted should not be questioned in a court of law; would such a proceeding be practicable?

I do not think it would; I think it would be constituting a tribunal of parties who, in all probability, in at least some instances, might err for want of proper information.

1447. Is not that the case also with the present tribunal, a court of law?

I think in a court of law you have a much better chance; because the jurors, in special jury cases, are taken from different localities, and do not err very frequently, although, in the constitution of juries for trying patent causes, I think there is great room for improvement; they ought to be chosen from amongst gentlemen well acquainted with the subject-matter of the patent in dispute. Then you have witnesses who can speak as to prior use, where a previous patent has not been granted, and practical men are also called in to give evidence, who are or have been more or less connected with the branch of manufacture to which the case has reference; and in this way, generally speaking, I think a dispute is likely to be satisfactorily settled.

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1448. You think, in point of fact, that a case would be more thoroughly sifted where there were opposing parties, than where it was left merely to the inquiry of any particular tribunal?

Yes.

1449. In the case you were alluding to, was the alteration made by the second applicant for a patent considered an improvement in the trade?

No.

1450. It was an alteration without being an improvement?

It was an alteration without being an improvement; and, in fact, I consider, as a practical man, that it was inferior to the other; but the individual who took out the patent had this object in view; he wished to construct the machine, he being a machine-maker, without being under the obligation of paying for a license to Mr. Sellars for so doing; that was the great object he had in view.

1451. You think cases like that might often arise, where parties for mere alterations might obtain a patent for which, not being improvements, he did not deserve it?

Yes; there is a striking instance of that in the Exhibition. I was chosen a juror to represent Manchester, and in proceeding with my examination of weaving machinery, I met with a person at a loom, who told me that for a certain slotted lever used in the taking up motion they had obtained a patent; this slotted lever has to be regulated by the attendant as the cloth-beam increases in diameter: now, I consider that a practical mechanist would at once have pointed out the absurdity of granting a patent for such a thing, inasmuch as there have been patents granted for improvements in looms which are far superior to anything of that kind, and require no alteration by the attendant, and they may be seen at work in the Exhibition. I instance this to your Lordships in order to show that the subject-matter of an invention ought to be worthy of the monopoly granted to the individual.

1452. You think that a tribunal could not be constituted in which inventors would place sufficient confidence to be content to have the novelty or utility of their inventions determined by that tribunal?

I think, upon the whole, that inventors would not like to have a refusal: for whenever that occurred, it would certainly shake their confidence in any tribunal; but I think the board of examiners ought to have the power of refusal vested in them; still there might be cases where it would be desirable to allow the inventor to appear before the board to answer questions, and then the applicant could be shown if his invention was old. The difficulty now is to ascertain this, there has been so many patents taken out, and having no published list or record to which inventors can refer to satisfy themselves whether any patents of the like description have been taken out before. We want one like that to which I referred in the possession of Professor Woodcroft, and which I found so valuable in my search for the patents relating to corn-mills. The difficulty and expense at the present time is, to trace out and ascertain what is new, although I know that patent agents sometimes make a charge for instituting a search: in fact, I can state a case, in which 10 l. was charged for one, and the answer was, "There is no prior patent for that invention;" the applicant took out a patent, and in about twelve months after, a person connected with the same patent office gave him notice that he was infringing another gentleman's patent, and he paid a sum of money to that gentleman for a license.

1453. If a tribunal were fit to be entrusted with the delicate duties which you would assign to it, would not it be equally fit to undertake the duties you now refer to?

I think the Clauses IV., V. and VI. in the Bill presented by the Earl Granville, and worked out by the Commissioners in the way I have stated, would be effective, and if there was a published list of all patented inventions, which could be consulted at a trifling expense, inventors would not be disposed to ask for a patent for that which had been patented before.

1454. Under no circumstances would you take away the power of deciding as to the infringement of a patent from the jurisdiction of the superior courts?

Under no circumstances.

1455. Do

1455. Do you think that there is an objection to the numerous stages which a patent must pass through under the present system? *Mr. B. Fothergill.*

Yes, a decided objection, both with regard to the expense and great loss of time, and also to the system of caveats, which ought to be abolished; they only serve the purpose of parties whose object is to pirate the inventions of others; this they frequently accomplish by bribing the workmen in the employ of an inventor, so as to ascertain the nature and object of the invention for which a patent is applied for, and they then embody that in their drawings. 20th May 1851.

1456. Would you allow no opposition to take place to the granting of a patent?

I expect your Lordships anticipate abandoning the system of caveats altogether; therefore, I think that the plan here proposed would render opposition unnecessary.

1457. From what period do you think the patent ought to date?

I think it ought to date from the time the application is made, and that a consecutive number should be given to the individual, in order to ensure the priority of his claim.

1458. It has been proposed to the Committee, that where the specification is complete, the patent should date from the date of the application; but that where it is necessary to bring in further specifications, it should be left to the discretion of the Attorney-general whether the alteration made by the second specification is such as should preclude the party from having his patent dated from the date of the first application, leaving it to date only from the second?

I think in all cases it ought to date from the first application; my reason for coming to that conclusion is, that I think a person ought not to apply for a patent, save and except he has matured his invention. If a man has got an invention, or says he has, he ought to be able to put that invention upon paper, both as regards the drawings and brief specification, in such a way that when it is lodged at the time he makes his application, there shall be the sum and substance of the invention at least laid before the parties to whom the application is made.

1459. Do you think, from your practical experience, that it is possible for an inventor to perfect his invention without some such previous protection as is proposed by the Bill?

I do not say that he would actually perfect it; but I mean to say, that the general outline of the invention can be embodied in such a way as to make known what object the inventor wishes to accomplish.

1460. Do you think that he could advance it so far as to be able to specify fully and effectually?

I think so, by giving him a certain time, say, six months, in order that he may perfect his specification, and any improvement in the mode of accomplishing his object he may be at liberty to introduce: for instance, in the case of Sellar's loom patent, his object was to prevent the yarn from being broken whenever the shuttle trapped in its course, and this he accomplished when that happened, by the application of a break, which instantly stopped the loom. Now, in that case, his break was actuated by upright levers; he afterwards altered the arrangement and position of the break-lever, and this was urged against his invention at the trial; now, I consider the invention was the same in reality, only simplified a little in the mode of working it; it is in this way that I would allow any alterations to be made in a specification and drawings, and I think six months is a sufficient length of time for that purpose; but in all cases I would give immediate security.

1461. How long a period do you think should be given for making the specification perfect?

I think six months is quite sufficient.

1462. Are there any other opportunities for fraudulent practices at the office of the Attorney-general or Solicitor-general, besides those afforded by the caveat system?

Suppose I take out a patent under the present system, and I take it out under a very comprehensive title, no person knows by what combination of machinery I am going to accomplish the object I have in view; but suppose in one, two or
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three months after the date of my patent, another party obtains one for certain improvements in machinery which comes under some of the heads of my title, I can adopt means to ascertain what the other party is doing, and, availing myself of the priority of date, rob him of his invention; I know cases where this has been done. The following is a title of the kind I refer to, for "Improvements in the machinery or apparatus for preparing, carding, spinning, doubling, twisting, weaving and knitting cotton-wool, and other fibrous substances; also for sewing and packing."

1463. Suppose a person took out a patent for an improvement in the grinding of corn, by a process of introducing blasts of air between the grinding-stones, would that patent ride over all possible contrivances or processes to accomplish that end: suppose, for example, the process by which he applied the known principle were of a very inferior kind to other processes, of applying the same principle to the same result which were subsequently discovered, could his patent preclude the introduction of those processes by other parties?

I should say no; I have stated a case in point, which is the one at the top of the list I have laid before your Lordships.

1464. If it would not preclude the introduction of other processes, is not the validity of the patent in a great measure shaken in the hands of the original patentee; he points out, by the publication of his specification, to the attention of all inventors, the application of the principle of introducing blasts of air between the grinding-stones; they, by means of the publication of the original inventor's specification, get a knowledge of that principle, and possess themselves of the benefit to be derived from it by superinducing, upon his application of the principle, some modification, great or small?

Yes; I was going to observe, that it would all depend upon circumstances. Here are two cases in point, Corcoran's and Gordon's; in the one case you could only introduce a certain quantity of atmospheric air; never, under any circumstances, could you get beyond that quantity. Now, for grinding a certain quantity of wheat in a given time, the quantity of air which you could supply by Corcoran's method would not be sufficient if the grain were at all new and moist; but by Gordon's improvement, that is to say, forcing a quantity of air in, there is no limit placed to the introduction of the quantity necessary, either when they are grinding a dry corn, or that which contains a given amount of moisture; therefore I consider it is going a step further than the original invention, and in this case Gordon was an original inventor; he did not know that Corcoran had taken out a patent when he contrived the application of the fan to force the air in. You will not find Gordon's patent among those extracts I have handed in, as his specification has not been published, and I have not got a copy of it with me; the same argument applies to many other inventions, such as paddle-wheels, screw-propellers, &c. &c.

1465. If the privilege of protection be given to parties introducing further improvements in a particular process, ought not there to be some protection given to the original inventor in the form of not calling upon him to publish his original suggestion to the world?

I do not think that that should be the case, from what has happened in cases which I have known; for instance, in the case of Mr. Gordon; he was not aware that the invention had ever been applied by any party prior to his own discovery; and Corcoran was not the inventor; he took out the patent as a communication from a foreigner residing abroad.

1466. He was a subsequent original discoverer?

He was a subsequent original discoverer; but there are cases where individuals, knowing that certain things have been patented before, will even attempt after that to bring forward a patent for the same subject, and in some cases be fortunate enough to dispose of their patent, though knowing at the same time it is the invention of others. That is the reason why I am an advocate for a tribunal constituted in the way I before spoke of, for examining what has been done in the different branches of invention, and reporting upon it.

1467. Where, as in the case you have mentioned, an inventor has introduced a new principle, such as the introduction of air between two millstones, and a subsequent inventor has greatly improved the application of that principle, should

should not you allow the original inventor to derive some benefit from his original invention, and require a license for the use of the improvement which has been subsequently introduced?

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I was going to refer to that, and call your Lordship's attention to several instances in which I have known a party who has made improvements on a previous invention: the patentees, generally speaking, have come to some arrangement, in order that they may share the profits of the monopoly. The license that is charged under the second patent may be divided in certain proportions between the two; that is the only way in which I conceive the difficulty can be surmounted.

1468. Are there not two classes of cases, first, those in which the suggestion of the new principle is the most important part of the invention, and the various modes of applying the principle are of secondary importance; secondly, the class of cases in which the suggestion of the new principle is no less important part of the invention, and the processes through which that principle is to be brought into practical operation constitute by far the most important part of the invention?

There are, decidedly; in both cases there are instances which have fallen under my own observations. The first, where an inventor has plainly laid before him the object for which a contrivance is wanted, and his attention is especially called to it, he goes to work, and accomplishes that object for the individual who employs him. Secondly, an individual may only throw out a suggestion, and that may lead an inventor to carry out that suggestion to a much greater extent, and make the invention tenfold more valuable. Again, a party who is hunting for the means to carry out an idea, may go to an inventor, and institute a series of inquiries, under pretence of engaging the individual to work out his idea; the inventor not only points out the method to accomplish that object, but he says, I could devise means whereby the remainder of the process could be worked out by a combination of mechanical movements, instead of the present system of hand-labour; I could do it in such a manner, and he describes it. The other party, without further ceremony, goes and takes out a patent, with a title sufficiently broad to embrace that, and thus the real inventor is deprived from reaping any benefit. Recent patents for improvements in weaving carpets, and other piled fabrics, by steam or other power, fully prove the correctness of my statements; and I know instances where inventors have been treated in this way, and their inventions sold for several thousand pounds by the parties patenting them, without the original inventor deriving any benefit whatever; and in all these cases I do not see how you can legislate for it in any other way than by the plan proposed, of having drawings and specifications lodged at the time of applying for a patent, and allowing each individual a chance of securing their respective inventions.

1469. How could you, under those circumstances, protect both the parties; by what machinery could you give protection both to the party who originally suggested the idea, and the party to whom he suggested it, and who carried it out to perfection?

There is no machinery that I know of by which they might both be protected, except that the parties come to some mutual arrangement, either to take out the patent as their joint invention, or to divide the profits in certain proportions.

1470. To what extent would you give protection to the improver of an invention which had been laid aside, and become practically obsolete?

I think, under those circumstances, it would come under the head of a new combination, and ought to be protected for the same period as a new invention.

1471. Supposing an invention were now made for a new source of motive power, superior to steam, and a patent were taken out for the invention, in the form of certain machinery, through which it was to be carried out; supposing, after that patent were taken out, another person came forward, using that same source of power, but applying to it an improved form of machinery, do you think it would be right that the second inventor should possess himself of the whole benefit of that discovery, and by that means oust the original suggestor from those advantages which he might fairly have expected to derive?

No, I do not.

1472. If you think that ought not to be the case, can you suggest any means
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by which that evil can be effectually guarded against, without incurring the opposite evil, of allowing the suggestion of a comparatively unimportant principle to ride over the merits of the person who, by important discoveries, renders that principle much more efficient in practice?

I can only say that I consider the institution of a board of examiners, and the lodging of drawings and specifications at the time of making application for a patent, would be the most effectual method, for it would then be seen what the merit of the improvement was.

1473. What you mean is, that you would allow a person who introduced a new principle to have a patent for that new principle?

Yes.

1474. In addition to that, if any body applied that new principle in a further manner not contemplated by the inventor, you would also allow him to have a patent for that further application?

Yes; that is the state of the law now.

1475. Is that what you would wish to see continued?

Yes; we had a case in a trial at Liverpool, in March last, which will explain my meaning: the cause was *Newton v. Vaucher*, in which an action was brought for the infringement of a patent. Vaucher took out a patent for applying a certain alloy, called "soft metal," for packing hydraulic pumps, pistons and valves of steam-engines, for the purpose of rendering them steam, air or water tight. Newton afterwards took out a patent on behalf of a gentleman residing in America, for applying a similar alloy, called "soft metal," for the lining of steps or bearings in which the journals of axles used in railway carriages, locomotive engines, &c., revolve, for the purpose of reducing friction, and preventing heating and abrasion; this was never contemplated by Vaucher, and consequently it was a new application of a known material; but the principle was the uniting of a soft metal to a hard one. The application in the latter case was more valuable than in the former, some of the axles having run 60,000 miles, and the lining and journal did not appear to be the least worn; the jury decided that the patent was good, and gave a verdict for the plaintiff, on all the pleas.

1476. Do not those two distinct rights, existing in separate parties, lead necessarily, very often, to an understanding between the parties for a common use of the whole of the improvement?

Not exactly in such cases, but only in cases where an inventor wishes the use of a part of an invention which is only applicable to certain machines, but claimed for all; for instance, he may claim it when used in the machinery for preparing to be spun cotton wool, and other fibrous substances; it may in his description only be suitable for carding; but another applies it by a new combination to the drawing, slubbing and roving frames, which also come under the head of "preparing to be spun."

1477. Does it often happen in your experience that the same person discovers the original principle, and brings the application of that principle to perfection?

Yes; but I am sorry to add that they are, generally speaking, the worst rewarded.

1478. Your observation is intended to show that the person who has the chief merit to an invention is not always the person who meets with the reward?

In many cases that is so; take, for example, Westley, of Leeds. I should say his inventions have been invaluable in the flax-spinning trade; I allude more especially to his invention of the screw gill now in extensive use in the preparation machinery both of flax and wool, and also the introduction of his short spreading machine, for which inventions he has not been remunerated, while thousands of pounds have been realised by the parties using them.

1479. Do you think the expense attendant upon taking out patents has offered any impediment to the person whom you mention reaping the benefit of his inventions?

I think so, certainly; he lost one invention entirely, that was the introduction of the continuous apron to the spreading machine, one of which can be seen at work at the Exhibition.

1480. Do you think if the cost of obtaining patents had been moderate, he would

would have been able to have taken out a patent, and to have reaped the benefit of his own invention? *Mr. B. Fothergill.*

Yes; and to this day Westley states, that if he had had the means in his own power, and patents had been cheaper, he would have taken out a patent immediately, and secured the profit to himself; and there is no doubt but it would have paid him very handsomely. It has been the means of saving thousands of pounds.

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1481. Can you, from your experience, state any other instances of a similar description, where the great cost of obtaining a patent has thrown impediments in the way of an inventor, and deprived him entirely of the benefit which he ought to have derived from his invention?

I can state two instances which occurred to myself a few years ago.

1482. Have the goodness to do so?

I introduced improvements into certain machines; in one case, a patent was taken out in my name, but I did not find the money, because I had not the means; and there was only a verbal agreement between the parties and myself, and they have never allowed me a farthing for the invention. In the other case, a party undertook to try an invention for me as an experiment; they did so, but they gave an order to another machine-maker to build them some machines, and to apply my invention, which they showed them, and thus I lost it, and they are now to be seen at the Exhibition.

1483. As a patented machine?

One is, but the other is not.

1484. The public obtained the immediate advantage of it?

Yes.

1485. Are there any other cases?

There are several cases to which I could refer, if I had before me my memoranda on the subject. I have been connected with the mechanical business between 30 and 40 years, and have had an opportunity of examining and bringing into operation a great many inventions myself, and witnessing those which have been introduced by others; I know many parties who have suffered serious loss, but I would not mention names without having their permission.

1486. I apprehend you look upon the patent system as a means of stimulating invention?

I do.

1487. Do not you think it is desirable to stimulate invention among operatives?

Yes, I do, because the hope of reward sweetens the labour; and I know many instances where operatives would have taken out patents had they been cheaper.

1488. You think it desirable to make patents cheap, so far as you look to the desirability of encouraging invention among the operatives?

Decidedly; because I think that our manufactures would be benefited thereby.

1489. How far would the system which you have already alluded to, and which is approved of by you, namely, that of not giving unrestricted facility for taking out a patent, but requiring certain proof of the merit of the invention, and subjecting it to certain judicial ordeals, militate against the object you have now spoken of, that of rendering patents very accessible to the operative classes?

I cannot say that I can state how far it would operate in that way; but I wish your Lordships to understand that I do not object to the granting of patents for new inventions, whether original in themselves, or new combinations of known parts, or new applications of known substances to other branches of manufactures; what I object to is the granting a patent for that which has already been the subject-matter of a patent, or is at the time of the application already in extensive use; but I think that if a patent could be obtained for 10*l.* at the first cost, a great many operatives would avail themselves of the privilege.

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1490. You have stated that you object to the suggestion offered to this Committee by Mr. Roberts, of allowing any person to patent what he thinks proper, and to stand by that patent, whatever may be its fate, but you think that there ought to be previous inquiry as to the merit of the invention, and its probable utility; would not that necessarily interpose impediments in the way of the operative classes deriving benefit from their inventions?

I do not say there ought to be an inquiry as to the merit of the invention, and its probable utility; I have stated the grounds upon which I think a patent ought to be refused; if a man comes to-day, and obtains a patent for a certain invention, and another comes in a month hence, and applies for a patent for the same thing, I would not grant a patent to the second applicant, and I think he would be more satisfied with a refusal, than by allowing him to throw his money away.

1491. Can you suggest any means by which the accomplishment of the object which you just alluded to can be reconciled with giving full facilities to the operative classes to benefit by their suggestions or inventions?

The only means I have thought of is that of immediately publishing all specifications, so that all parties would know what has been done, and then I think it would remove the difficulty.

1492. Have you observed that inventions have generally proceeded from practical men or operatives, or from scientific persons?

I think, generally speaking, from practical men and operatives.

1493. Then the class of persons from whom the greater number of useful inventions proceeds, are those who would chiefly benefit by the cheapening of patents?

Decidedly so.

1494. Would not your object of facilitating the acquisition of patents by the working classes be attained by such a small payment as you suggest, in the first instance, leaving it to be followed by a larger payment when the value of the patent became more apparent, and they were therefore more likely to receive the assistance of capitalists?

That is why I approve of these Bills; in the first instance, they bring the patent within the reach of the operative, and he has an opportunity of securing to himself the invention for which he takes out his patent; while, in the interim, he can make his arrangements with the capitalist better than he has any opportunity of doing now. At the end of three years, I think that a further sum should be paid, say 40 *l.*, and at the end of seven years, 70 *l.*

1495. In saying that you desired to have an extremely cheap system of patents, such as you have described, you meant to confine your remark to the first payment, not objecting to further payments, to follow upon the success of the patent?

Decidedly so; I meant 10*l.* as the first payment.

1496. You stated that you thought it was made a matter of trade by certain persons, without inventive faculties, to import inventions from abroad; do you think that it is for the advantage of manufacturers in this country that a person, who has not made any new invention himself, should be protected for a term of years for the importation of an invention used abroad?

I do not think, generally speaking, it is; I think it would be better to confine the benefit of the patent to the party who has secured the invention in the foreign country.

1497. Supposing an invention has been made use of in France or Germany, or in the United States, do you think that the importer of an invention which has been already used, and found practicable there, should receive a monopoly for introducing it into this country, or ought it not to become public property, which any manufacturer, who feels the necessity of the invention, may make use of without paying a tax?

Yes, I think that unless the individual who is the inventor take out a patent in this country, and secure the monopoly here, it ought to be open to manufacturers and the public generally.

1498. You

1498. You refer, of course, to the patentee in the foreign country?

Yes.

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1499. It has been represented to this Committee by some witnesses, that in the case of useful inventions brought into practical operation abroad, the inducement to bring them into operation in this country will not be sufficient if it is left to individual interests, but that it will require some premium, in the form of patent rights, to secure the effect of the introduction of foreign inventions into this country; do you agree with that opinion or disagree with it?

I disagree with it, for this reason: I think the facilities which would be afforded under the proposed system, for the patentee to take out a patent at a cheap rate in this country, would induce inventors to do so. Hitherto the great expense has prevented this being done. I know parties abroad who have applied to me to learn if I could find persons to join them at the expense of taking out a patent in this country for inventions which they have brought out and patented abroad. I think such a regulation would prevent "trading in patents," and would encourage foreign inventors to secure and bring out their inventions in this country.

1500. Have not there been many instances in the history of the improvement of machinery in this country of foreign inventions being brought over to this country, and remaining here for a considerable time before anybody can be induced to bring them into practical operation, which inventions have ultimately turned out to be of extreme importance and usefulness?

I cannot call to mind, at the present moment, any which have come within my own observation, except some, where other improvements have been added to them. I know some which have been patented, and have not answered; I dare say I might think of others which have been of the character to which your Lordship alludes.

1501. Is not there among all classes a much greater wish to introduce improvements into the mode of carrying on business than ever existed before?

Yes.

1502. Would not a man hearing of a good invention in France be likely to adopt it even without its being forced upon his attention by the advertisement of a patentee in this country?

There is no doubt of it, I think.

1503. Are there any disadvantages or inconveniences which occur to you from the multiplication of patents, consequent upon the reduction of the cost of obtaining them?

No, I do not perceive that there would be any.

1504. You have stated that it is undesirable to have a great number of useless patents in existence?

Yes.

1505. Is not the probability of useless patents being taken out increased by diminishing the expense of obtaining them?

I do not think it is; I think many inventions are now allowed to sleep, so to speak, and are never brought forward, because the parties have no stimulus to work them out.

1506. Do not you think that, in proportion to the cost of obtaining a patent, the party would be cautious in ascertaining and satisfying himself that the invention is a really useful one, and will be a profitable one?

Yes, I think the same observation would apply to cheapening patents, although you may bring them within the range of the sum I have stated, that is 10%; it must be remembered that 10% to an operative would be a very serious sum; it would be as much as he could afford to expend upon a patent to secure it to himself, and therefore he would be as careful, under those circumstances, and perhaps more so, than he is now, in endeavouring to meet with a capitalist to take out the patent for him.

1507. Do you think the present cost of obtaining patents is instrumental in inflicting injury upon an inventor, by compelling him to sell his invention disadvantageously?

I do.

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1508. Do

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1508. Do you not think that the provision of the Bill which makes it necessary to pay an additional price for the continuance of a patent, will have the effect of preventing the accumulation of useless and worthless patents?

Yes, I do.

1509. Will you state for what term you think a patent should continue before any additional payment should be made?

I approve of the proposals which are made in the two Bills, of three years and seven years.

1510. In saying that you wish to give every facility for the multiplication of patents, you have reference, have you not, to the preliminary inquiry which you contemplate, by means of which useless and worthless patents will be exposed?

Yes, in every case.

1511. Have you any statement on this subject which you wish to make, which you have not made, in reply to the questions which have been put to you?

There is one suggestion with reference to the publication of all specifications; I think that is an important point; I should also say, that the parties in Manchester who applied to me to represent them, particularly wished me to impress upon your Lordships the necessity of securing the services of one or more practical scientific men, in the event of these Bills being carried into operation, to assist the Commissioners in examining specifications.

The Witness is directed to withdraw.

W. Cubitt, Esq.

WILLIAM CUBITT, Esquire, is called in, and examined as follows:

1512. YOU are President of the Institution of Civil Engineers?

I am.

1513. In the course of your professional experience have you become acquainted with mechanical inventions generally?

Yes; I was acquainted with mechanical invention generally before I undertook altogether the profession of a civil engineer; I was a practical mechanic in a variety of employments for many years; in fact from my earliest childhood almost.

1514. Have you ever been an inventor yourself?

Yes, of many things; but a patented inventor of but one.

1515. You have taken out a patent?

I took out a patent in the year 1807.

1516. Has your attention been at all directed to the advantages or disadvantages of the patent system?

Yes, it has been drawn to the subject very frequently indeed; but the more it was drawn to it, and the more I saw of it, the less I approved of it; but with that disapproval I could not satisfy myself how to devise anything much better; whether to make alterations, or whether to do away with patents altogether would be best, I can hardly determine.

1517. Will you state, generally, your objections to the present system?

The objections to the present system are, the very advanced state of scientific and practical knowledge, which renders it difficult to secure anything. The principles of mechanism being very well known and very well understood, inventions involving exactly the same principle and to effect the same object may be practically and apparently so different, that patents may be taken out for what is only a difference in form, intended to produce the same effect, without there being any difference in principle.

1518. Do not you think that the patent laws have been of advantage in stimulating invention, and inducing inventors to disclose their inventions to the public?

I think

I think the patent laws have set a great many people to invent things to secure benefit to themselves, as benefit was so to be secured. It is a great question with me, upon the whole, whether all the benefits are equal to all the losses incurred by expending money upon patents, looking to the great legal contests which always arise if anything be really good.

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1519. Do you think that the system has acted in an injurious way in stimulating persons to attempt to invent, who have no peculiar inventive power?

I think people will always invent anything that is useful and good, if it will answer their purpose to do so, even without reference to a patent.

1520. Is not it the case, that there are certain machines involving complicated arrangements, which are of no use till they are made perfect, but that without the prospect of some protection, or some monopoly, persons would not spend the time and money necessary to bring those machines to perfection?

It is difficult to say when a machine is perfect; the more simple it is, the more perfect it is, generally speaking: I will take the case of steam-engines, which, in a great degree, have really improved backwards, to use a misnomer; that is to say, there is nothing so simple in my judgment and experience, as the plain simple cylinder engine, whether high pressure or condensing, with the steam acting on one or both sides of the piston; that is the simplest form of steam-engine, and, as far as I have seen it tried, is the best: people have contrived all sorts of schemes to improve the steam-engine: for instance, by making rotatory engines, and very complicated things, so complicated indeed that they become exceedingly costly; several instances of that kind may now be seen in the Great Exhibition, where any one may assure himself, or with a little explanation may see that things which have cost a great deal of money, and are very complicated, are not so good as those which are more simple and cheaper.

1521. With regard to the steam-engine, even taking the one which is in the form you describe as the most simple application of steam power, did not it require many years and great expense to bring it to that degree of perfection?

No; the steam-engine is very much the same now as it was when Watt himself left it with his first improvements; it is just the same thing; the great difference has been in the improvement of the tools to make steam-engines with, which made the workmanship more perfect.

1522. Did not that first steam-engine cost Watt a great deal of time and money and labour to bring it to the state in which he left it?

It cost him a great deal to defend his invention in the courts of law, as I have heard him say.

1523. What effect has the present patent system had in leading inventions by workmen?

I can scarcely say; there have been some few inventions brought out by workmen, where the inventions have been confided to their employers, or to persons having capital, in order that they may be worked; I know some few instances of the kind which have answered the purpose, but I do not know them by name; but there is less room for invention than persons imagine. There is little chance of a workman inventing things which will be very useful, which are not known at present, because they do not know what has been done. Cases frequently come under my knowledge of that kind; one did the other day, in which a person had an invention for which he did not take out a patent, but he made it, like a sensible man, for his own purposes, as an article of sale; the article which he made was for filtering water: he had a patent for a peculiar artificial stone through which the water was filtered, and he could make it of different degrees of fineness; he took out a patent for that; and he made a filter, in which a stone vessel, hollow, like a bomb-shell or a cylinder, with closed ends, was enclosed in a larger cylinder of iron, into which it would fit loosely, leaving a space all round; the outer cylinder was connected with the water-main or water-pipe or cistern, and filled by it; and the water then percolated through the inner vessel, from which inner vessel a stop-cock went to the outside to draw the water—that was filtered water; or you could reverse the operation, the foul water could be put into the inside of the stone filter, and be drawn from the outside vessel or iron case as filtered water; that was made and sold by him, and answered the purpose very well indeed; he sold a great many to some advantage. Now came the operation of the patent laws upon it; shortly

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after he began to supply his customers, he received notice from a house in Liverpool that he would be prosecuted; he received intimation of legal proceedings against him for interfering with his, the Liverpool man's patent. I have some of those filters, and other persons have them whom I know, and some noblemen and gentlemen, and one especially, in Portland-place, had one. The manufacturer of these things, who had no patent, came to me to consult me upon the subject; I at once saw how the case stood, having regard to the specification of the Liverpool patentee, that he had taken out a patent for that which another man had before done so exactly, that the words of the specification and the drawings fitted the first man's invention, which was without a patent, therefore his patent would have been null and void. I advised my friend to write to the patentee to inform him of the fact, that he had taken up a case which he could not support, and that he himself was infringing upon the invention of the first man, who had no patent; that brought the Liverpool man to me, I having been referred to as having one of these filters in use; I explained to him that I had had the patent filter of the other man for two or three years. Then, what was to be done? I advised my friend, who was in fact one of the Ransomes, of Ipswich, to tell the Liverpool patentee if he did not come to some arrangement of a business-like nature, he himself would have to become the prosecutor, and to sue out a "*scire facias*" to make him prove his patent right, which is an expensive legal proceeding, and very troublesome to a patentee. I believe they have since made some business arrangement; but that shows how patents may be, and are frequently, taken out for things which have been previously invented.

1524. Would not that be corrected by the provision in the Bills which are under the consideration of the Select Committee, which would provide for complete indices being kept of all specifications?

That has been proposed. I was talking with a gentleman outside just now, who has really begun a thing of that kind. He has an exceedingly good index; but that will not guard against the case which I have now mentioned, because it will be an index of patents which a person can even now find, if he will spend money and time enough in searching for it. The system altogether is too complex, and patents are taken out for too minute differences. Take the screw. The article of the screw for steam navigation has caused more money to be spent in patents, for the short time it has been in use, than anything I know. I have been called on as a witness several times, against my inclination, to prove certain principles in regard to the screw, all which need to be obviated by some change in the law, if it be possible. I do not know how to change it.

1525. Would not those inconveniences be avoided by the appointment of scientific persons to assist the Attorney-general, whose business it would be to make themselves acquainted with what has been previously done?

Scientific persons are frequently, as scientific persons, very little practical. Though they know a great deal of science as applicable to such and such things, they do not know the nature and practice of such things sufficiently to determine whether the patent would be an infringement of what has been done, or whether it would not, or rather, whether it ought or ought not to be considered to be so.

1526. Persons of practical and scientific accomplishments might be combined for the purpose?

They would throw great light upon the subject, no doubt; but that would become very expensive, because if they were competent to do what was necessary, they would become too expensive for persons to employ them; and then if you have mere theoretical men, they become charlatans, and the object is not attained in that way. The subject is beset with difficulties on all sides.

1527. Do you see any objection to the plan proposed for amending the present patent law, by allowing every inventor merely to register his invention, and then fight out the validity of it subsequently in a court of law?

If parties about to take out patents could be protected by their being held in abeyance for six months, and they were then able to perfect the patent without fear of anything they might divulge injuring their own invention, I think great good might result from that, and I think that is the best step which could be taken; but nothing ought to be done in a very great hurry, or all at once. I think if persons about to take out patents could be put in the position of persons

now

now exhibiting in the great Exhibition, good would arise. I understand the case to be just this :—if the Extension of Designs Act, which has been passed during the present Session, in respect of the articles now in the Exhibition, work as I hope it will work, I think that patents generally might very advantageously be placed under the same system, and that the greatest good would thereby result, in preventing worthless patents being taken out.

1528. You think there should be a provisional registration, allowing a certain number of months, during which time the parties might either make up their minds to withdraw their claim for a patent, or perfect their invention ?

Yes.

1529. You think that by that means the party would have sufficient time and opportunity of ascertaining whether anything similar to his own invention, or so similar to it that the patent would be an infringement of what previously existed, had been already patented ?

Yes ; I think that is the first step to an improvement. I find that everybody complains of the patent laws, and nobody seems able to point out the remedy.

1530. Will you refer to Clause XIII. of Bill No. 2, and see whether its provisions would meet your views ?

I think that the term of six months, in some cases, would be too short ; I should say, “ not less than six months or more than twelve.” I think that clause contains the germ of something like an improvement. There is no one Act which can perfectly improve the patent laws ; but, I think, they might be gradually improved by such means as these.

1531. The Committee understand, that you do not think that inventors require the stimulus given by the patent laws, or that that stimulus is necessary in order to induce inventors to disclose their inventions to the public ?

I do not think that persons would set themselves about scheming and contriving things in order to take out patents for them. I think that those persons who are able to make useful inventions, and who ought to be protected by patents, would of themselves, scheme quite sufficiently for their own purposes, without any view to obtaining a patent.

1532. If such is your opinion, you probably do not think it necessary that the mere importer of an invention from abroad should be protected for a certain term of years ?

When once a thing is published, and can be seen by all the world, if they go where the thing is, it should be prohibitory, I think, to a patent. I think a patent should only be granted for something quite original.

1533. You do not think that the introducer of an invention ought to have the same advantage as the inventor ?

No ; it would depend upon how he obtains the thing from the inventor. If a man has really followed the inventor, and takes out a patent after spending a great deal of his intellect and money to secure that patent, he certainly ought to be protected, but the difficulty is to prove that there is originality in it.

1534. Do not you think that all cases of this nature should be tested and judged of, not by what the inventor ought to have, but by what arrangement is most conducive to the public interest ?

The public should be considered by the laws and the law makers. The inventor, or the party who uses the invention for his own benefit, ought to make all he can of it fairly and honestly. It frequently happens that those things which cost the least, and are of the least real value or public utility, meet with a rapid sale ; a great deal of money is made by them for a short time by keen inventing tradesmen, whether they are original or not. They last long enough by having a patent to keep others out of the market, but they themselves get paid for a thing which scarcely deserves protection ; whereas those things which are very costly, like the invention or the improvement of the steam-engine, or turning the great powers of nature to account by new and improved methods, seldom or ever become remunerative, because they are too costly ; people will not pay heavy premiums for using the patent right, but they will wait 14 years, or whatever the time is, till the patent has expired, and then take to the use of it ; but if it is a pair of snuffers, for instance, and the cost is very trifling, they

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will sell thousands or tens of thousands of them ; the patentee will be well paid, and themselves enriched, but the public would not be benefited.

1535. Surely in the case of a very important improvement on a great scale, the profit derived from the use of that improvement is much beyond any cost of the license ?

Yes, it is ; but such is the practice of mankind, that they will not do so ; they will not pay it.

1536. Do you think that the circumstance of a man taking out a patent for any invention, generally leads to further improvement, or checks further improvement ?

I think it tends to check improvement for a long time. If a patent is a safe patent, and well specified and taken out, nobody can use that article, or make it, without a license from the patentee during the existence of the patent ; that is, so far, a hindrance to improvement. Then comes a patent for an invention for such a little improvement or deviation as will evade the letter of the law, though not the spirit of it. That is the cause of so much money being spent in law-suits in reference to patents.

1537. You do not think that the fact of an object being attained in one way, sets other people to attempt to attain that same end in a perfectly different way, and therefore is productive of useful results ?

Yes, I think they may attain the same end in a different way, which, in nine cases out of ten, is an evasion of the letter of the patent. As an elucidation of that position, I will take the screw for a steam-vessel : a man will take out a patent for a screw with a certain angle of blade ; another will take out another with a different angle ; I have known patents with quite as little difference as that, whereas the invention is the same exactly.

1538. Was there no patent taken out for the use of the screw generally, without reference to the angle ?

Yes, if it is a screw ; I should say the screw is a good subject for a patent, whatever the angles of the threads may be ; still it is a screw ; there are a great variety of patents founded upon the different angles of the blades of the screw.

1539. My question was, whether any patent had been taken out for the screw, without reference to any particular angle of the blades ?

I do not know exactly, but I think Smith's screw, which was improperly called the Archimedean screw, seemed to take the lead, and I believe it has put some of the other patents on one side.

1540. In that case there was no specification of a particular angle ?

I think not ; specifications and patents for screws are now very numerous, and a great many legal processes have gone on at great cost about them.

1541. Do you think that it would be practicable to get rid of those little troublesome patents, if there were a competent tribunal to inquire into them, and if the expense of such an inquiry were not a bar to it ?

I think that that would depend upon how much they knew upon all the subjects which came before them ; I believe you would get no Board at once sufficiently theoretical and practical to know all ; a perfect tribunal of that kind would imply a full knowledge of the whole subject ; we cannot expect to have such a Board, and the difficulties therefore would so far remain.

1542. Confining your attention to mechanical inventions, do you think that your own institution, for instance, would have much difficulty in throwing overboard ninety-nine out of one hundred small and useless patents ?

They might do a great deal of good in that way ; I dare say they would put aside a good deal of rubbish ; but it would not be satisfactory, I think. People will invent, and they will take out patents ; the natural conceit of inventors is so great, that they think nobody can know so well as themselves, till they have done the thing and failed, and even then they will scarcely be convinced.

1543. Supposing in any particular case there were an oversight, would there be any injustice in leaving the party to appeal to Parliament for a remuneration ?

I scarcely know what to say to it ; I think the less Parliament has to do with such matters, the better, because they merge so much into trading and business transactions,

transactions, in which every man ought to do as he pleases for his own benefit; if he takes out a bad patent it is at his own risk, and at his own cost. I have often thought about a Board to examine inventions, and say, whether they are sufficiently original for patents to be granted for them; but from the experience I have had of Boards and committees, and so on, I very much doubt whether the thing would work well.

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1544. You think that such Boards are more promising in theory than they are found to be, by experience, beneficial in practical results?

I think so.

1545. Have you read the two Bills now before the Committee?

I have not; I do not know the nature of the Bills upon which the Committee are sitting; it is a subject which I never went into, or applied my mind to much, having rather a dislike to the system, not because it may not be good in principle, but because I never saw it act well. With all the present laws, and all the present means of making inventions, the more science improves, and the more practice improves, the more difficult do these things become; my idea is, that in a rude and infant state of society, where there is very great room for improvement, patents may be, if not good, better than they are in an improved state of society; the more improved society becomes, and the more perfect is the application of science practically to the ends in view, the less can patents be supported, and the less value they really are.

1546. The result produced upon your mind by your own observation and experience through life, is unfavourable rather than favourable to the patent laws?

Yes, and with this mortification attending it, that I do not know how to cure the evil; most people think they do, but I plead guilty to not knowing at all.

1547. You think the patent laws are an artificial contrivance for the purpose of stimulating inventions, more applicable to the early stages of mechanical invention, than to the more advanced development of it?

Yes; upon the whole, I think they do rather more harm than good; if they were altogether done away with, I think nobody would suffer, but many persons would gain.

1548. No mode suggests itself to you, by which patent rights could be applied effectually to those cases in which they might be considered useful, at the same time distinguishing effectually those cases in which you think patent rights are pernicious rather than useful?

The difficulty is, that no man will be persuaded that his inventions are bad, till they prove so bad that he cannot support them any longer. I had a great deal to do with taking out patents formerly, and in devising a scheme for the purpose of making complete sets of apparatus to produce a patent invention entirely private, so that no one should know what the patent was to be, in order that it should not be forestalled; a great deal of that work was done in the house I was connected with at the time; we could get up patents, and get them taken out, and establish them as it were, having sharp clever men at the head of the trading concern, and a private method of getting out inventions. A patent could be taken out, and made to pay very well indeed for a few years; that was to their benefit, and so far to the benefit of the public, because the inventions were for useful purposes; I refer to patents for the extension and progress of agricultural machinery. I think, as a workman, I made the foundation or the patterns of 30 or 40 or 50 different sorts of ploughs for different descriptions of soil; there were patents taken out not only for the ploughs, but for the separate parts of them; that was the great concern of the Messrs. Ransome at Ipswich, and a very flourishing concern it is at this day; the patents were all well supported; I do not think they ever lost a patent; but, after all, the distinctions between some of the patents were very small, but they served as an advertisement to a large trade of a very respectable house.

1549. Would that degree of inventive talent have been expended upon agricultural implements if no patent laws had existed?

I think it would, in that case.

1550. Assuming that the principle of the patent laws is still maintained, do
 (77.8.) you

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you think it desirable to limit the granting of patents as much as possible, or to make it as wide as possible?

I think the patent laws now are wide enough for anything; there is nothing you cannot take out a patent for.

1551. There is an obstacle interposed, is there not, by the great expense of a patent?

People talk a great deal of the expense; if a man can take out a patent for 20 *l.* for a good thing, others will endeavour to get it from him in some way, and it will involve him in as much expense in law, as Watt told me about saving coals for steam-engines, it would involve him in continual law-suits.

1552. The great item of expense you imagine to be, at present, the cost of the law-suits to which patentees are exposed, rather than the fees which are paid for a patent?

Yes, that is my feeling; if a thing is worth having, people will endeavour to make something so much like it, that it will lead to doubts whether it is not the thing itself: then the patentee will prosecute his rights, and get into a court of law, and there expenses are incurred upon a scale to which the first cost bears no proportion.

1553. You do not think that much injury would be done, therefore, if all patent laws were to be repealed, leaving inventors without the protection which those laws are supposed to give them?

I quite think so; that is the leading view in my mind.

1554. If the patent laws were abandoned in this country, but patent rights were still granted in other countries, what do you think would be the effect upon invention in this country?

The patent laws in other countries would not affect this country, because they could do nothing in those countries which we could not go and see there; as society is at present constituted, no person holding a foreign patent could prosecute any one for doing what he pleased here.

1555. If inventions were made by ingenious people in this country, say in steam-engines or in any manufacturing processes, would not there be a tendency on the part of those inventors, to communicate those inventions in the first instance to the United States, and by that means to give priority in the race of competition to the manufacturers there over those in this country?

I think not; because they could do nothing there under the patent which we could not do without the patent, if we had no patent laws; we can quite equal them, and beat them, I think, at present, in the execution of machinery.

1556. Do not you think the most ingenious inventors in this country would, under those circumstances, turn their attention to the United States, and bring out their inventions first in the United States, leaving them to be afterwards adopted in this country, and that by that means considerable delay would arise, and priority therefore be given, so far, to the manufacturers of the United States over those of this country?

I think not; if they wanted to make those articles to bring here to sell, we should beat them in the manufacture, in my opinion.

1557. Would not there be this advantage to the manufacturers in this country, that they would pay no tax, whereas in America they would be paying for the patent right?

In the present state of intercourse between nations, I think there is less need of patents than there ever was, and greater difficulty in supporting them; it is more difficult to be original, that is the principle of the thing.

The Witness is directed to withdraw.

*Professor
 Bennet Woodcroft.*

Professor BENNET WOODCROFT, is called in, and examined as follows:

1558. WHAT is your occupation?

I am Professor of Machinery, in University College.

1559. You

1559. You were examined before the Select Committee upon the Extension of Designs Act of this year?

No.

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1560. Were you examined before the Privy Seal Commission?

I was.

1561. With respect to the evidence which you gave on that occasion, is there any point upon which your opinions have undergone any modification?

No.

1562. It has been stated to the Committee, that you have drawn up the most valuable index which is now in existence, with regard to specifications of previous patents?

I have drawn up a very valuable index. If your Lordships will allow me, I will hand in the following suggestions for the amendment of the law of patents, and a specimen of the index of specifications, which I have found to be a very valuable one.

The same are delivered in, and are as follows :

AMENDMENT of the LAW and PRACTICE of LETTERS PATENT for INVENTIONS.

DEFECTS explained, and REMEDIES suggested.

THE great defects of the Patent Laws, as they are now administered, are :—

I. That immediate security is not given to an inventor when he lodges his petition. Declaration and deposit of a preliminary specification.

II. That all the charges for patents are exorbitantly high.

III. That, although the law presumes that every inventor is acquainted with the patented inventions which have preceded his own, yet no provision has, to this hour, been made to enable him to ascertain the number of enrolled specifications, the nature of the inventions so specified, nor the names of the patentees.

To remedy these defects, it is proposed :

1st. That patents for each or any of the three kingdoms shall be granted on a petition, declaration and brief specification of the nature of the invention being deposited in any appointed office, such deposits to be dated and marked with a progressive number.

2d. That the officer presiding there shall give a receipt for such deposit, on which is marked the progressive number, showing which deposit it follows in point of time.

3d. That the patent shall bear the same date and number as the deposit, and shall be considered an earlier grant than the number next following.

4th. That the price of an English patent shall be _____ ; a Scotch, _____ ; and an Irish patent, _____.

5th. That all specifications, both past and present, shall be legibly printed, and sold at prime cost by an authorized firm.

6th. That a chronological index of patents, from the first granted by James the First to the last granted by her present Majesty, with a progressive number attached to each, and with references also to the books and pages in which some specifications are published, be also printed, and sold as before described.

7th. That a chronological index, alphabetically arranged, according to the patentees' names, be also printed and sold as before described.

8th. That a chronological index of all patents, arranged according to the subject-matter of the invention, be also printed and sold as before described.

9th. That, in case an inventor takes a patent for something which has been previously patented, but not published, he shall, on the publication of such prior patent, have his fees returned and his patent cancelled.

10th. That the registration of an article under the Designs Act, shall be considered to relate to the shape, configuration, outline or contour only of the article so registered, being an intrinsic quality, and shall not be prejudicial to a patent subsequently taken for the same thing, when such article is to be used with one or more additional agents, for some practical purpose, constituting "a new manufacture."

Several Bills to amend the laws relating to patents have been brought into the House of Commons since the year 1833, and all have signally failed, owing to the promoters attempting to obtain too great an alteration of the existing system.

If an inventor can obtain a patent immediately on application, and at a cheap rate, and also have an enrolment office of the specifications of all previous patents correctly indexed in his

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own library, or in that of some public institution in his own town, it will be a matter of indifference to him who the employed officials are, or how many stages the patent goes through.

The following extracts of chronological indices of patents are from complete lists, that have taken years to prepare for publication. When a sufficient number of subscribers is found, they shall be immediately published.

BENNET WOODCROFT.

3, Furnival's Inn, Holborn,
1 January 1851.

INDEX of PATENTS,

Chronologically arranged, with Progressive Numbers and References attached.

Applegath, 19th February 1824, 4896.—“Newton's London Journal,” vol. x. p. 14. A grant unto Augustus Applegath, of Duke-street, Stamford-street, Blackfriars, Surrey, printer, for his invented certain improvements in machines for printing; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Church, 19th February 1824, 4897.—“Newton's London Journal,” vol. x. p. 169. A grant unto William Church, of Birmingham, Esq., for his invented certain improvements in machinery for printing; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Isaacs, 19th February 1824, 4898.—“Repertory of Arts,” vol. i. 3d Series, p. 125; “Newton's London Journal,” vol. x. p. 9. A grant unto the Reverend Moses Isaacs, of Houndsditch, London, for his invented certain improvements in the construction of machinery, which, when kept in motion by any suitable power or weight, is applicable to obviate concussion by means of preventing counteraction, and by which the friction is converted into a useful power for propelling carriages on land, vessels on water, and giving motion to other machinery; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Vallance, 19th February 1824, 4899.—“Repertory of Arts,” vol. i. 3d Series, p. 52; “Newton's London Journal,” vol. x. p. 113; “Mechanics' Magazine,” vol. vii. pp. 15, 36, 53, 167, 251, 307, 377, 412; “Mechanics' Magazine,” vol. viii. pp. 11, 35, 68; “Engineers and Mechanics' Encyclopedia,” vol. i. p. 35. A grant unto John Vallance, of Brighton, Sussex, Esq., for his invented method of a communication, or means of intercourse, by which persons may be conveyed, goods transported, or intelligence communicated from one place to another, with greater expedition than by means of steam carriages, steam or other vessels, or carriages drawn by animals; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Chambers, 28th February 1824, 4900.—“Repertory of Arts,” vol. iii. 3d Series, p. 140; “Newton's London Journal,” vol. x. p. 5; “Engineers and Mechanics' Encyclopedia,” vol. ii. p. 272. A grant unto Abraham Henry Chambers, of New Bond-street, Middlesex, Esq., for his invented improvement in preparing and paving horse and carriage-ways; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Evans, 28th February 1824, 4901.—“Repertory of Arts,” vol. ii. 3d Series, p. 354; “Newton's London Journal,” vol. ix. p. 72; “Engineers and Mechanics' Encyclopedia,” vol. i. p. 66, 383. A grant unto Richard Evans, of Bread-street, Cheapside, London, wholesale coffee dealer, for his invented method or process of roasting or preparing coffee, and other vegetable substances, with improvements in the machinery employed, such process and machinery being likewise applicable to the drying, distillation and decomposition of other vegetable, mineral and animal substances; together with a method of examining and regulating the process, whilst substances are exposed to the operations before mentioned; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Gunby, 28th February 1824, 4902.—“Repertory of Arts,” vol. ii. 3d Series, p. 217; “Newton's London Journal,” vol. viii. p. 179; “Engineers and Mechanics' Encyclopedia,” vol. ii. p. 75. A grant unto John Gunby, of New Kent-road, Surrey, sword and gun manufacturer, for his invented process, by which a certain material is prepared and rendered a suitable substitute for leather; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Christie, and another, 28th February 1824, 4903.—“Newton's London Journal,” vol. x. p. 122, and vol. xx. conjoined Series, p. 136; “Engineers and Mechanics' Encyclopedia,” vol. i. p. 570. A grant unto John Christie, of Mark-lane, London, merchant, and Thomas Harper, of Tamworth, Stafford, merchant, for their invented improved method of combining and applying certain kinds of fuel; within England, Wales and Town of Berwick-on-Tweed. Enrolment six months.

Yetts, 28th February 1824, 4904.—“Repertory of Arts,” vol. i. 3d Series, p. 23; “Newton's London Journal,” vol. x. p. 7. A grant unto William Yetts, of Great Yarmouth, Norfolk, merchant and shipowner, for his invented certain apparatus to be applied to a windlass; within England, Wales and Town of Berwick-on-Tweed. Enrolment two months.

CHRONOLOGICAL INDEX of PATENTS,
Alphabetically arranged, according to the Patentees' Names.

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NAME OF PATENTEE.	Progressive Number.	Date.	Subject-matter of Patent.
Applegath, Augustus -	4896	19 Feb. 1824	Printing machines.
Austin, Humphrey -	4973	22 June -	Shearing machines.
Alegre, Pierre -	5000	7 Oct. -	Generating steam.
Apsdin, Joseph -	5016	21 Oct. -	Making artificial stone.
Atlee, James Falconer -	5068	11 Jan. 1825	Process to prevent planks and other scantlings from shrinking, improving their closeness of texture, &c.
Andrew, Jonathan -	5074	11 Jan. -	Throstle and water-spinning of cotton, flax, silk, wool, &c.
Ayton, James -	5096	19 Feb. -	Spring to be applied to bolting mills for dressing flour.
Attwood, Thomas -	5104	26 Feb. -	Nibs and slots in copper cylinders for printing cottons, linen, silk, &c.
Apsdin, Joseph -	5174	7 June -	Making lime.
Atkins, George -	5184	18 June -	Stoves or grates.
Addams, Robert -	5302	14 Dec. -	Propelling carriages on turnpike, rail, or other roads.
Anderton, George -	5335	4 Mar. 1826	Combing or dressing wool and waste silk.
Aubrey, Louis -	5372	4 July -	Web or wire for paper-making.
Andrews, Frederick -	5430	20 Dec. -	Carriages and engines to propel the same by steam, or other suitable power.
Apsey, Joseph -	5560	27 Nov. 1827	Substitute for the crank.
Atlee, James Falconer -	5584	27 Dec. -	Construction of made masts.
Atlee, James Falconer -	5598	15 Jan. 1828	Bands or hoops for securing made and other masts, bowsprits and yards.
Applegath, Augustus -	5604	26 Jan. -	Block-printing.
Adams, Thomas -	5639	6 May -	Trusses.
Aspinwall, Thomas -	5649	22 May -	Mechanical "type-caster."
Atherley, Edmund Gibson	5655	12 June -	Apparatus for generating power, applicable to various purposes.
Arnold, Thomas -	5783	26 May 1829	Gauge for denoting the strength of fluids or spirituous liquors, and measuring the quantity.
Aitchison, John -	5839	15 Sept. -	Concentrating and evaporating cane-juice, solutions of sugar, and other fluids.
Arnold, John -	5877	26 Jan. 1830	Spring latch, or fastens for doors.
Aitkin, William -	6015	30 Mar. -	Preservation of beer, ale and other fermented liquors.
Applegath, Augustus -	6079	31 Aug. -	Printing machines.
Archbald, William Augustus	6100	13 Oct. -	Preparing and making sugar.
Alcock, Thomas -	6150	13 Jan. 1831	Machinery for making lace, called bobbinet.

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Arranged according to the Subject-matter of the Invention.

SUBJECT-MATTER OF PATENT.	Progressive Number.	Date.	NAME OF PATENTEE.
Machines for printing - - - -	4896	19 Feb. 1824	Augustus Applegath.
Machines for printing - - - -	4897	19 Feb. -	William Church.
Machinery or apparatus applicable to or employed in printing - - - -	4952	15 May -	Thomas Parkin.
Roller printing presses - - - -	4986	27 July -	Edward Cartwright.
Machinery or apparatus for printing calicoes and other fabrics - - - -	5005	7 Oct. -	Matthew Bush.
Calico printing by means of certain vegetable materials - - - -	5133	29 Mar. 1825	James Hanmer Baker.
Figuring or ornamenting goods of silk, cotton, flax or other yarn - - - -	5138	31 Mar. -	John Heathcoat.
Printing woollen and other fabrics - -	5217	26 July -	David Oliver Richardson.
Processes or machinery for printing cotton and other fabrics - - - -	5303	14 Dec. -	Matthew Ferris.
Machinery or apparatus for printing calico and other fabrics - - - -	5471	27 Mar. 1827	Matthew Bush.
Processes and apparatus for printing yarns of linen, cotton, silk, wool, &c. - -	5472	31 Mar. -	Bennet Woodcroft.
Block printing - - - -	5604	26 Jan. 1828	Augustus Applegath.
Printing machinery - - - -	5767	19 Mar. 1829	James Wells Waite.
Machinery or apparatus for printing calicoes and other fabrics - - - -	6029	24 May 1830	Matthew Bush.
Printing machines - - - -	6046	19 July -	Edward Cowper, <i>et alter</i> .
Machinery or apparatus for printing calicoes and other fabrics - - - -	6133	6 Dec. -	Robert Dalglish.
Apparatus for impressing, stamping or printing for certain purposes - -	6156	22 Jan. 1831	Charles Mephram Hannington.
Process and apparatus for printing yarns, so that the device may be preserved when the yarn is woven - - - -	6157	22 Jan. -	Louis Schwabe.
Printing machines - - - -	6158	29 Jan. -	Robert Winch.
Printing silk, cotton and other goods or fabrics - - - -	6285	3 Dec. -	Cornelius March Payne.
Imparting to fabrics or yarns colours necessary to form patterns thereon - -	6447	5 Jan. 1833	William Gratrix.
Letter-press and block printing, and machinery used for the same - - - -	6541	18 July -	Augustus Applegath.

1563. What was your reason for drawing up that index?

I am unfortunately one of the class of inventors. In the year 1826 I took out a patent for a supposed improvement in propelling; I paid for that patent, and afterwards, upon inquiry, I found it was old, and that it was not the first by a considerable number of patents that had been previously granted for the same invention. The next time I was bitten with the mania for invention, I thought I would not lose both money and time in a similar way; I therefore collected, as well as I was able, the titles of all previous patents for a similar purpose, which

which had been granted. I then went through the Enrolment Offices in London, to ascertain what really had been done. I found, however, I had undertaken a very costly and a very tiresome course of proceeding, but it was the only safe one. The first search, I think, was for an improvement in looms for weaving. The index of the titles took me about two or three months to make; I found some of them in works in the college of the town in which I lived; some in the Repertory of Arts, and in other published books on the subjects of patents. I then went to London, and it took me about three weeks to make a search for those various specifications for weaving, in the Enrolment Offices; there is one great evil I found to exist, namely, that the specifications are enrolled in three different offices, the Rolls Chapel, the Enrolment Office and the Petty Bag Office, and at none of them had they a complete index of all the enrolled specifications of patents; so that, when an inquirer asks for a certain specification, they will look in their index which contains the specifications only which have been enrolled there; and if they have not the specification asked for, they tell him, "We have no such enrolled specification, you must go elsewhere;" then they say, "But you must, nevertheless, pay your fee for the search; that is necessary;" then he goes to the next office; if they have it not there, the fee for the search is again demanded. He then goes to the third office, and it may not be even there, as the specification may not have been enrolled. So that the inquirer not only loses his time in running to all the three offices, but he is compelled to pay three separate fees. This, I think, is a monstrous abuse, and requires to be rectified; it has frequently happened to myself. The next time I went to town was on an invention for propelling; I had another extensive search; I had 400 patents to wade through; I found so great an abuse to exist as to granting patents for the same thing over and over again, that I thought I would be patriotic, and publish my list of documents, containing all the schemes which had ever been patented under that head. I prepared those documents to be printed, and now have them; but when I went to a publisher and he saw this mass of matter, he discerned at once that such a work would have no attraction for the general reader, and at once told me, "This will neither pay you nor me, sir." It led me to publish a short "Sketch of the Origin and Progress of Steam Navigation." I found that no step in the art of steam navigation had been made which had not been the subject of a patent. Among 400 patents I found that a very few heads would comprise the whole of the inventions; for instance, of vertical paddle-wheels, there have been a score of patents, which are identically the same in mechanical action; for drawing water in at the bow of a vessel and pumping it out at the stern, there have been another score or two; then for making the float-boards of paddle-wheels move in various directions on their axes there have been also many patents; and for propellers in imitation of duck's feet, there has been a large number of patents.

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1564. What number of patents are there now in existence?

There are about 13,600 expired and existing patents; I have brought up the list to the present day; I wished to have had the credit of publishing this book; I originally obtained from the Lord Chancellor's clerk a list of all the titles of patents ever granted, chronologically arranged; they almost fill four folio books; it is a very large work to begin with, but having got it in order to render it of great use to myself, I ascertained if any of these specifications had been published; I obtained most, if not all, of those works which are said to contain the true specifications of inventions, or which relate to patented inventions at all, and I indexed every one of them; your Lordships will see the trouble I have been at in finding the volume and page in each work where a specification is published.

1565. In the index which you searched, what kind of classification was there?

Only a chronological classification. There is a reference to almost each specification in this little publication of mine, and if there are 20 references to one patent, I have got them all.

1566. In your scheme, into how many classes have you divided the subject?

Into three; I first put the progressive number to each patent; I found it easier to refer from one index to another by that means.

1567. The progressive number is your addition?

Yes; in the first instance the classification is chronological; the next list is
(77.8.) F F alphabetical,

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alphabetical, and the third list is arranged according to the subject-matter of the invention.

1568. You have only divided the subject, you say, into three classes ?
I have divided the indices into three classes.

1569. In the third portion of your index into how many subject-matters would it be divided ?

I think into about 493 heads, and into the total number of heads and subdivisions 614 about. In the case of printing I have divided it into 14 subdivisions, as follow :

1. Printing books, maps, almanacks, bills of prices, christenings and funerals.
2. „ likenesses, pictures, diagrams, fac-similes.
3. „ music.
4. „ (lithographic) ; and machinery for printing surfaces.
5. „ (letter-press) ; and machinery, presses, &c. (making, finishing, inking).
6. „ (stereotype and copper-plate), printing bank notes (and machinery for).
7. „ (paper and paper-hangings), and machinery for.
8. „ (yarns and raw materials), and machinery for.
9. „ (calicoes and muslins), and machinery for—block printing.
10. „ (cottons, fustians, velvets, cotton cloths), and machinery for.
11. „ (linens, lawns, lace), and machinery for.
12. „ (silks), and machinery for.
13. „ (woollens, stuffs, mixtures, &c.), and machinery for.
14. „ by electricity ; electric printing.

1570. The division into heads, and afterwards the subdivision, would facilitate the search extremely ?

Yes, very much ; if you wished to know what James Watt, or any other inventor, had patented, by looking for his name in the alphabetical list, you would see at once the number of patents that had ever been granted to him. Then if you wished to see what anybody else had done in respect of steam engines, you would look under the head of “ Steam Engine,” and you would see the whole of the inventors’ names.

1571. The drawing up this index must have given you much labour, and required much skill for the organization of it ; would there be any difficulty in a public office, if that were once adopted, to continue it ?

No ; it might be continued and kept up to the day in a public office.

1572. If that plan were adopted, and the index of patents subdivided, as you suggest, it would be sufficient for a person intending to make an improvement in the steam engine, for example, merely, to look under the word “ Steam Engine,” and in a short time he would ascertain every patent taken out upon that subject ?

Yes ; but if only one index were kept, it would require that there should be those references to it I have before alluded to.

1573. If the party referred to the number, you having already numbered every patent, he might, by searching under that number, ascertain the nature of each of those patents ?

He might, if he could get at the specifications, which are unpublished ; if the specifications were all in one enrolment-office, for instance, he would have an opportunity of going over each of those specifications ; if they were printed, it would be far easier for him to do so.

1574. The expense of printing the specifications would be very great, would not it ?

I do not think it would ; I should make the patentees pay for it.

1575. For the future ?

Yes ; and even in the case of past specifications, I think all patentees would benefit by it ; I should have no objection, as a patentee, to pay something for doing so. If the knowledge of what had been done were made public, a large number of patents would never be taken out, which, under present circumstances, are

are sure to be granted. In consequence of the public knowing that I have published a book on steam-navigation, and that I possess the specifications of propelling patents, there are very few weeks elapse in which I have not some one who comes to me with a scheme to ask if it be new. No later than last Saturday, a gentleman called on me, and said, "I am a stranger, but I have taken the liberty to ask you a question; do you know of such a scheme as this, for propelling—showing me a drawing?" "Yes," I said, "I know of half a dozen." He said, "I am seeking a patent for it, and I have got as far as the report." I replied, "It will save you a great deal of money if you stop where you are."

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1576. Without printing the specifications, but merely having them enrolled in one office, do you think a short index might be arranged so as immediately to enable an inventor, in a very short space of time, to ascertain all which has previously been done?

No, certainly not.

1577. You think it is impossible?

Quite impossible.

1578. Supposing an index to be made merely of the subjects, with a reference by means of numbers to each patent taken out, the specifications being enrolled under those numbers, would not a discoverer be able, very easily, to find out those specifications which refer to the subject about which he was making a discovery?

Provided the specifications are all to be in one office; if he had only an index of those specifications it would take him a long time; if he lived in the north, for example, and he had this index, he would say, "This index teaches me nothing; I know that those specifications will be found in certain offices, but I must go to those offices to search." If he be a workman, having but little means and time, he comes up to town, and finds perhaps it is a holiday at the offices; it would cost him more than he could afford; but if those specifications were published, he could see them in the public library in his own town.

1579. Would not the publication of existing patents, with their drawings, be a very great expense?

It would be a considerable expense, but not great. If the following plan were adopted, it might meet the evil: if your Lordships observe, in page 3, of the list, I have references to every specification which is already published; if the Government would benevolently undertake to publish those which are nowhere else published, it would be a great advantage to the patentee, because then he would get some general knowledge of each. If he wanted the complete specification of a patent of which an abstract only had been published, he could obtain an office-copy at a large price.

1580. Do the publications you refer to, contain abstracts of the specifications?

There is one, the Repertory of Arts, which contains the whole specification, with the drawings attached; but none of the others contain more than abstracts.

1581. Do such abstracts tend to mislead, in your opinion?

They do; I took out a patent for a loom; I looked in one of those books, and happening to see my name, curiosity led me to read the abstract, and from it I did not know my own invention.

1582. Would the specifications be very voluminous?

No, I do not think they would.

1583. Do you think, if there were a publication of all specifications, there would be any considerable demand for them on the part of the public?

I think on the part of all patentees there would.

1584. You think there would be a considerable sale?

Yes; I think every public library would have a copy.

1585. Do you think there would be a sale sufficient to pay any considerable portion of the expenses of publishing such documents?

I do not think it would be a profitable affair, nor do I think it would be attended with much loss. Any one who had an ambition to become the historian of inventions, could not do better than take such a work on patents, because he

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would there not only find the true course of inventions, but he would also find every futile effort made in that direction.

1586. You think that the sale of this work would be nearly sufficient to defray the expenses of the publication?

Yes, I think so; and if it were not, it would be the most valuable encyclopædia of inventions ever published. I think there is a great amount of valuable knowledge withheld from the public by not publishing all specifications.

1587. Would there be any sale of such a work with reference to legal proceedings?

In all cases of legal proceedings there would be a considerable sale.

1588. In some of the present offices you are not allowed to copy a specification, are you?

No, you are not allowed to copy any portion of a specification; they will not even allow you to copy from your own specification.

1589. For what reason is that?

They do not give any reason.

1590. Is not one of the objects of granting a patent the obligation upon the inventor to give a specification, which makes public his invention?

The obligation on the part of the patentee is, that he shall not only describe the nature of his invention, but also the manner in which he carries it into effect.

1591. Is not that done by the specification?

Yes; which specification is virtually withheld from the public.

1592. Therefore one of the very grounds of the patent law appears to be defeated in those offices where there is great difficulty thrown in the way of specifications being copied?

Entirely so.

1593. Is not the object of a patent to give to the patentee the sole use of that patent for a certain period of years, at the termination of which it shall be given up to the public?

I believe the object is, that the public shall immediately be made acquainted with the nature of the invention. The term patent signifies that it is open.

1594. The present practice defeats, to a certain degree, that object?

To a very great degree.

1595. Do you conceive that the object of patent registration is to make the public acquainted with the nature of the process during the existence of the patent; is not that rather an accidental accompaniment; is not the chief object to secure the certainty that, when the patent expires, the public shall have a means, in case of the death of the patentee, or his unwillingness further to explain himself, of obtaining that knowledge which shall make the invention practically and easily useful to the public?

No, I believe the law says this: you shall so describe the nature of your invention, and the manner in which you carry it into effect, as that any competent workman in that class of the arts shall be able to carry it into effect; and the law still further says, if you do not enrol the specification in a public office within six months after the grant, your patent shall be void.

1596. That is the provision of the law; but is not that provision made for this principal object, namely, that at the expiration of the exclusive right granted by the patent, the public shall be in possession of such detailed information as shall enable every very intelligent mechanician to use that process by his own knowledge of the contents of the specification?

Yes, that is one object, that when the patent expires it shall be public property, and you shall know how to use it; but if the specification were withheld from the public until the patent expired, numerous patents might be granted for the same invention during the existence of that patent.

1597. (To Mr. *Webster*.) Is there any provision by law that the specifications shall be accessible to the public?

There is no provision by law; it is the practice that you may go and consult them

them upon payment of a fee ; the reason why they will not let you copy is, that it detracts from the fees of the office.

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1598. By law, does there exist any right on the part of the public to go and inspect specifications ?

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Not by law, only by practice.

1599. Are not they open to the public by law ; have not I a right to go and see them ?

Perhaps we are differing as to the meaning of the word law. The practice is, that if you go to the office and pay the fee, you have a right to see them ; but there is no enactment for that purpose.

1600. Supposing they refused at the office to let me in, could I bring an action against them for obstruction ?

No, I think not.

1601. You could not force an entrance ?

No.

1602. (To Professor *Woodcroft*.) Is not one of the greatest impediments to the progress of discovery, that you are always afraid of touching upon something which has already been invented ?

Yes.

1603. And you have no means of ascertaining whether or not it has already become the property of somebody else ?

Just so.

1604. Does not it often happen in consequence that very active minds, likely to make valuable discoveries, waste their time upon subjects on which discoveries have been already made ?

That is the fact.

1605. Is not that an admission that, whatever may be on other grounds the advantages of patent rights, they involve that as a very considerable evil and objection to them ?

No ; on the contrary, if all the specifications were open to the public, if they were so classified that a man could find how far the human mind had gone in a certain direction, it would prevent his beginning to endeavour to discover what had already been well known to some patentee perhaps a hundred years back ; by such publication you would place the inventor's mind at the very margin of an untrodden field of inquiry. Inventive minds cannot be suppressed in their activity, and it would be a public good to employ them beneficially, and prevent them from wasting their energies upon past inventions.

1606. In fact, without some facility for ascertaining what has been done before, there must be a great loss of inventive energy ?

A very great loss indeed.

1607. You imagine that that facility might be given by a proper publication of specifications ?

I do.

1608. Under any circumstances, are you of opinion that all specifications ought to be accessible to the public ?

I am, distinctly ; and that the public would derive great benefit if such were the case.

1609. Referring to the index which you have made, would a search in it be very easy ?

Very easy.

1610. How long would it take a person who was making an invention for propelling carriages on turnpike or other roads to discover all the previous inventions which had been patented upon that subject ?

It would not take him long, a few hours would do it ; one hour would suffice to read through all the titles which embraced them, and to go through the books of reference a couple of days might be sufficient ; to a workman, an hour or two

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at night at a public library would enable him to trace the history of such inventions as he might desire to be acquainted with from the beginning.

1611. Would there be any risk of the title not leading to the knowledge of an invention?

In some cases the titles are very vague, but in the list which I have made, the published specifications have been consulted, to get at the right title; for example, I find one title of this kind; in the year 1788 a patent was taken out, the title of which was "for an improvement in propelling vessels on water." I put it in this list, but when I came to investigate the matter, I found the invention was a locomotive engine with three cylinders. Mr. Robert Stephenson has lately taken out a patent for a locomotive engine, one feature of which consists in its having three cylinders; it was a steam horse, in fact. In looking over this list of mine, I suppose I have a reference to eight out of about 10 specifications. The list of the subject-matters has been corrected.

1612. Would not trusting to such publications as you have referred to, be very apt to mislead?

In some of the publications it would, but they have an advantage to this extent: if the invention were for a steam-engine, it would direct the party to the particular part of the steam-engine which he desired to examine; if it were valves, he would find it under that head.

1613. You have made as effective a search as can be made under the present system?

Yes.

1614. You were engaged yourself in making some invention, were you not?

Yes.

1615. What was the subject of that invention?

The subject of the invention was propelling.

1616. How long did the search take you?

Several weeks.

1617. Suppose the index you propose had been in existence, how long would it have taken you to make the search?

It would not have taken long; I cannot say exactly how long.

1618. A couple of days?

Less than a couple of days.

1619. As compared with six or seven weeks?

Yes; having all the specifications ready for publication, one day would amply suffice to go through those documents.

1620. In the paper which you have handed in to the Committee upon the amendment of the law and practice of letters patent, you state that one of the principal defects is that immediate security is not given to the inventor when he lodges his petition; you propose to obviate that by obliging him to give a brief specification of his invention, and allowing his patent to date from the time of the application?

Yes; that I should propose as a great improvement on the present practice.

1621. You think he should receive a receipt for such a deposit, marked with a progressive number?

Yes.

1622. Upon his depositing his specification, would you give the inventor no time for completing that specification?

I think he ought to have some time.

1623. Supposing he introduces fresh matters into the specification, would you still allow his patent to date from the day of the first petition?

Fresh matters ought not, I think, to be introduced; that would be a new invention; it would not relate to the first grant; I think a patentee ought not to ask for it.

1624. It

1624. It would be a little difficult, would not it, to ascertain what was precisely fresh matter, and what was a more perfect working out of the original conception?

Not when there is a deposit; I have deposited a scheme under the present system; I have given a general outline; I had six months to specify, and about five have elapsed; I have no enlargement to make, nor do I wish to make any; I think a man ought not to go and ask for a patent, unless he has invented something.

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1625. You talk of inventing as a malady; what are the symptoms of the disease?

The symptoms are, that when you become affected by it, and your mind is bent upon the subject, you cannot apply it to anything else; you cannot even attend to your own regular business. I was called on the other day for an improvement upon the screw-propeller. I have had two patents for that instrument already. One is almost universally adopted, I believe, and the other has not been in use. I was called on, and asked, "Can you make the screw-propeller act in such a manner as described?" I said, "I cannot tell you without thinking about it. If you will give me a couple of days, I will return you an answer." This was after I had made a resolution to have nothing more to do with patents. I commenced again, however, and it took me three weeks, without paying attention to anything else, to perfect the proposition which I had set myself.

1626. Do you consider it a disease which is generally injurious to the patient?

Always injurious to the patient, but very often beneficial to the public.

1627. Is it in consequence of the benefit to the public that you think it right to apply a stimulus to the disease, which is likely to increase it?

I think there should be a recompense to inventors; there is no need to stimulate an inventive mind.

1628. You think the stimulus is not one of the advantages of the patent system?

In some cases the patent may be a stimulus, but not always.

1629. In the great majority of cases what do you think of it?

In the great majority of cases I think it is.

1630. Do you think that one of the reasons for maintaining a system of patent laws may be fairly considered to be the necessity of such an encouragement, in order to promote invention?

I think there is a necessity for promoting invention.

1631. Do you think the patent laws tend to produce that result?

I think they do.

1632. You think that in the present advanced state of mechanical knowledge it would not be safe to rely exclusively upon the general activity of the human mind, stimulated by the ordinary motives of fame and profit, without the artificial stimulus which is derived from the patent laws?

I think not; I think those who invent are slow to carry their inventions into execution. I know a great many persons, whom I might call poor inventors, to whom that would apply.

1633. Professional inventors?

No; men who cannot help inventing. I know the simplicity of their minds generally, and usually they have very little worldly feeling. Some practical man would then come in, and run away with the whole benefit to be derived from an invention; he would put it into practice with great rapidity, and reap all the advantage which the other ought to have gained.

1634. If a naturally inventive mind has very little worldly feeling, is not it a false system of policy to apply to that mind, as a stimulus, that which consists only of a worldly inducement?

I do not see exactly the bearing of that question.

1635. Are not there many cases in which the want of the means of taking out a patent entirely deprives the individual of the prospect of making any profit by his invention?

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In some cases inventors are so poor that they cannot carry out what they have invented.

1636. Supposing the patent laws did not exist, and no artificial protection were granted, would not there be many cases in which an inventor, from the want of means, would be deprived of the profits which others would reap from his invention?

In a large majority of cases.

1637. Would not there be this danger if no protection were granted to an inventor, that his object would be, as far as possible, to retain the secret within his own power?

He would retain it in many cases.

1638. Would not that be especially the case in inventions of a description which are more easily concealed, namely, inventions not of a mechanical, but of a chemical character?

It would be so.

1639. Are there not inventors who are at this moment in possession of inventions which have not been patented?

I do not know any good invention which has not been filtered through the patent laws. If your Lordship can name one, I shall be very glad to attempt to show the reason why it has not been patented.

1640. Has not it been the case, in some instances, that an invention has been given to the public, and that by some means or other a patent has been subsequently taken out for it?

I do not know any case of that nature.

1641. Are not Dr. Arnott's water-bed, and his stove also, cases of inventions given to the public without patent?

I do not know anything about Dr. Arnott's water-bed. I think Arnott's stove is an invention injurious to health.

1642. You think that by means of the patent laws, discoveries are brought forward which might otherwise be lost?

They are.

1643. The patent laws serve to protect and perpetuate them?

They do serve both to protect and to perpetuate them.

1644. And to prevent any such alterations being made in the original discovery, or the original plan, as would deteriorate from its beneficial character?

I think so. I think if there were a publication of all those inventions, the inventions as published would remain in the same state.

1645. Would not the publication of them, by means of an index, render that secure?

Yes; as far as relates to the title, it would. One of your Lordships spoke of chemical inventions, and of the ease with which the secret might be kept with respect to them. There is a gentleman who is a particular friend of mine; he is one of the judges of the chemical section in the great Exhibition; he is a self-taught chemist. Like myself, he has had a great deal to do with patents; some of his patents have been valuable, and have done great service to the public. I believe, of the two, he has been better remunerated than myself. He said, on one occasion, "I will have nothing more to do with patents." I said, "Do not tell me so; I have no doubt you will soon be taking out a patent again." And that has been the case with each of us; he has latterly made a very extraordinary discovery, which is exhibited in the Exhibition. It is a mode of preparing calico and other cloth, and fibrous materials, for the reception of colours, so as greatly to augment their strength and durability. The most extraordinary property which the fabric seems to acquire from this process is, that the colours upon it are far more brilliant, more durable, and produced with a greatly decreased amount of drugs. This gentleman is of European reputation. He has done more good for calico printing than any other chemist of the present day. I am sure that he would be glad to be examined by your Lordships, if you wish it.

1646. Has

1646. Has he taken out a patent for the invention you have mentioned ?

Yes.

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1647. Do you think that there should be any previous inquiry as to the merits of an invention sought to be patented, or should the inquiry have reference solely to its originality ?

Only to originality, I think. I think you might safely indulge an inventor so far as to allow him to obtain a patent for his invention, after having shown him what already exists ; for if the invention is either old, or in itself valueless, it can do no possible public harm. The inventor himself may be damaged, but there is no law which can prevent folly.

1648. Do you believe the law officers of the Crown to be competent to determine the question of originality or novelty ?

I do not think they are.

1649. If the law officers of the Crown had the power to call in other persons who were expert, or who had a knowledge of the subject, as advisers or assessors, do you think, under those circumstances, the law officers of the Crown would not be able to arrive at a sufficient knowledge of the subject ?

They would obtain a knowledge from those who had it ; they might get it in that way ; but I do not think they would get it without some advantage of that nature.

1650. Do not you think that scientific persons, without any legal assistance, would also find themselves in difficulties ?

I do not think they would find themselves in any difficulty about the novelty or originality of an invention, and I do not see how a knowledge of the law could aid them in such research.

1651. Do you think that the plan of leaving the inquiry to the law officers, giving them power to call in any person whom they chose or thought most fitted to give them information, would be the more safe means of arriving at a proper conclusion as to the originality of the invention, or that a certain number of scientific persons should be appointed, to whom all cases should be referred ?

I think a number of individuals might be selected, who, after investigation, would be enabled to say whether an invention was or was not new, and as to how much of it was new.

1652. Among that body of individuals it is probable that one might be well acquainted with one branch of mechanism, another with one branch of chemistry, and so forth ; but it would be very difficult, would it not, to find four or five persons learned in every one of those subjects ?

Yes, it would ; more difficulty would arise in chemistry than in mechanism, mechanism being a much more simple science.

1653. You think there would be no difficulty in forming a Board which would be efficient ?

I think not.

1654. Do you think that such a Board should be constituted of permanent members, or persons called in from time to time, according to the nature of the subject-matter ?

I do not know what to say about it ; I have no feeling either way ; but men accustomed to research would be more ready than those who were only occasionally so employed ; all that a patentee requires to have determined for him is, whether the invention be new ; he ought to be the judge of whether it is useful. I think the publication of all specifications would answer better than any Board.

1655. You would leave him to vindicate his own rights by a proceeding at law ?

Yes.

1656. Do you think that a court of law is a more desirable body to try the validity of a patent than a commission attached to the Attorney-general, and nominated by him, whose decision should be final ?

I have had law-suits respecting my own patents, and I am perfectly satisfied with the tribunal ; it is rather an expensive one.

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1657. Are

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1657. Are you satisfied with the trial at law, so far as the soundness and validity of the decisions go?

Yes; I have been subpoenaed in many other cases of contested inventions, and as far as my judgment goes, I have considered the law as laid down, and the decisions given, as being correct generally.

1658. Do you consider it difficult to determine, in the case of an invention, whether it is original or not?

It is not difficult, if you have the facts before you as to what has been already done.

1659. The question is, whether a person, who is well acquainted with any particular branch of invention, would be able of his own knowledge generally to tell whether a particular plan or application of principles is new, or has before been produced?

I do not think any individual is sufficiently competent to answer that question; he might educate himself to do so.

1660. Taking your own case, you being very conversant with mechanical invention, would you think yourself qualified to determine from your own knowledge whether any given invention were original or not?

I should certainly not do so, nor do I think that any man is competent; I do not think any human being can be so; if you said to me, "Will you educate yourself in a certain class of inventions?" I should say, "I will do it;" I could soon do that; I could apply myself to the subject for that purpose, but I could not speak to the novelty of an invention off-hand.

1661. Supposing you were professionally employed to determine for parties upon the novelty of their inventions, do you think you could undertake generally to determine that point with a moderate degree of time and expense?

If I had the whole of the specifications before me, I could do it in a moderate degree of time, and at a moderate expense, according to my own judgment.

1662. Is it entirely a question of fact, or does it not involve also a question of discretionary judgment, whether the difference existing between two patents renders one an infringement of the other or not, where there are different modes of applying the same principle, for instance?

If there are different modes of applying the same principle to obtain a different result, and the result obtained by one mode is very superior to that obtained by the other, I think it is quite clear that there must exist some distinct features of invention.

1663. You rested your former answer altogether upon the fact of your having access to the entire list of specifications; take a case of this description, such as was mentioned just now, an application for a patent for an invention which has never been patented before, but which has been in use before, and for a considerable time, you would not find any information as to that in the recorded specifications, and yet, nevertheless, the invention, a patent for which is applied for, is not an original one?

I think there is no useful invention you can name which cannot be found in the patent list.

1664. You feel so much confidence in that, that if you had the specifications to refer to, you think they would be a sufficient test?

I think so; I have gone through these things many times. I have been years and years labouring among patented and other inventions to classify them.

1665. With regard to the difficulty of determining whether an invention is new or not, the Committee have had allusions made by the preceding witness to recent inventions for improvements in the grinding of corn by forcing a draught of air between the grindstones; the Committee have also been told that there have been several improvements in the process of so forcing the air; supposing the case of a person coming to you in the subsequent instance with the improved process of forcing the air through the grinding-stones, to ascertain whether his invention were a novelty or not, you would find that the process of forcing air between the grinding-stones was no novelty, but that that particular mode of doing it was an improvement upon any existing mode of doing it, what would you say as to the novelty of that invention?

I have

I have not the specification before me to see the difference between the two modes.

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1666. Do you mean that the novelty would depend upon the extent and degree of improvement in the process?

If I had taken out a patent, and was the first discoverer of a mode of mechanically forcing air between the stones to keep them cold, I should think myself entitled to that invention, and so I should for any mechanical equivalent to it; if I had forced the air through with a pair of ordinary bellows, and another man after my patent had expired, forced it through with an ordinary fan, and he proved, that he economised, to a great extent, power and coal, I should say, he was entitled to a patent for the exclusive use of the fan. The latter patent would not prevent the public from using the old mode, explained in the expired patent.

1667. Supposing, in the one case, the inventor discovered a mode of introducing cold air between the millstones, and it struck a second inventor that there was an improved mode of introducing that air, that idea striking him within the first six months after the patent had been taken out, what protection should be given to the second man?

The law does now protect him, but it does not allow him to infringe the first patent; you may take out a patent for an improvement upon another man's patent, but you cannot use it so as to pirate the other man's patent; that would be a violation of it.

1668. You must obtain a license to use it?

Yes.

1669. You could not, then, force a blast of air between the stones, though the mode of so doing was totally different from that of the original inventor?

You could not.

1670. You could not obtain the same end, though the mode was totally different?

No.

1671. What should you do if an inventor came to you with the second invention, and asked your advice; should you recommend him to wait till the expiration of the patent?

I should tell him he was entirely in the hands of the prior patentee.

1672. Supposing this were the case, that the first inventor admitted a certain quantity of air, but could not, by his plan, admit any further quantity of air, and the next inventor forced in a blast which was a great deal more powerful, and effected double the amount of good, would the second man be entitled to a patent or not?

He would be entitled to a patent for his improvement; but he ought not to use it without a license from the first, so long as the patent of the first continued.

1673. Would not the public be deprived of the advantage of the improvement if the license were refused?

They would, till the period of the first patent had expired.

1674. Is not that a great defect, in your opinion?

No; you would be making use of the invention of the first man to carry out your own.

1675. Looking not at the justice to individuals, but looking to the public interest, is not there great danger of detriment arising to the public interest, if, by granting a patent in favour of the application of a principle, accompanied by a very imperfect mechanical mode of carrying out that principle, you suffer that patent to become the means of preventing, during its existence, any further improvement in the mechanical process of carrying that principle out?

It is an evil, I fully admit.

1676. If it be an evil, does not it become necessary, or at least highly desirable, that, in constructing a patent law, provision should be made to diminish that evil; namely, a provision for not granting a patent for the invention of a

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principle, unless that principle be accompanied by a tolerably good mechanical mode of carrying it out?

No; we have not many patents for principles now.

1677. They are generally for the application of principles?

Yes, for the improved application of some known principle.

1678. In the case which I have put to you, is not there merely an improved application of a known principle; the first inventor merely admits a certain quantity of air, and cannot admit any more; the second forces a blast of air, and has power to force it to a very great amount, by which means much more corn may be ground, and it may be kept much more moist; are not those both applications of a well known principle?

You have a different mechanical means of carrying it out, in the one case and in the other.

1679. Is the first the discovery of a principle?

The first is the discovery of a principle; it is the use of cold air between the stones for the first time.

1680. Is it an easy thing to define the limit between the discovery of a principle and the application of a principle?

I think it is very easy, I never found any difficulty in that respect; there is a marked outline in many cases; in some instances, parties may go and patent the same thing; but I do not think there is any difficulty in finding out whether inventions are similar or different, generally speaking.

1681. Do you think there is any natural tendency or propensity in inventors to keep to themselves their inventions, or have they a natural tendency to make them known?

The natural tendency of an inventive mind is to make the invention known.

1682. Are inventions ever kept secret now, because the inventor thinks that at some future time he will take out a patent for them?

I think some inventions would not be made, unless there were a prospect of the inventor being remunerated by means of the patent laws. There are many cases of the description your Lordship mentions.

1683. The inventor may hope to be able to defray the expense of a patent at some future time?

Yes.

1684. Do you think the expense of obtaining a patent is too great now?

Yes.

1685. Have you considered at all what would be a fair amount of cost, not making the patent too easily obtainable, yet bringing it within the means of an ordinary inventor?

I gave evidence upon that point before, and I will repeat now the same opinion; I do not personally object so much to the sum paid for a patent as many do; I should prefer patents being cheaper, but I have never had any great desire to cheapen them too much. Individually, I do not care so much about the price as I do about the other evils connected with the patent laws.

1686. Still, upon general principles, you think patents ought to be cheap?

I do.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Thursday next,
Two o'clock.

Die Jovis, 22^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

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Professor BENNET WOODCROFT, is called in, and further examined
as follows :

1687. WHAT is your opinion of a commission to decide on granting letters patent for an invention ?

The other day the Committee heard, in the evidence of Mr. Fothergill, that at Liverpool a trial had taken place about soft metal bearings, and Mr. Carpmael, a patent agent of great experience and talent, opposed the plaintiff's patent, and said that it was not new ; that a previous patent of a like nature had been granted to the defendant ; and Mr. Robert Stephenson was of opinion that the second patent, the plaintiff's, was a distinct invention, and so was I : the one being for the use of white metal as a substitute for hemp, and the other being for the use of white metal as a substitute for brass. In the one case it was a substitute for hemp, to make a vessel air or water-tight ; in the other, it was a substitute for brass, to prevent friction or abrasion in the working of the axes of machinery. Had Mr. Carpmael been a Commissioner, he undoubtedly would have refused that patent, and the second patentee, whose invention is a very great public benefit, would have lost his invention, and probably the public also. If I may state what I know of that invention shortly, it appears an anomaly that brass would wear out in a few months, but that if a small portion of brass were excavated, and soft metal put in its place, the step or bearing would wear for a much longer period, and require less oil even in the axle bearings of locomotive engines. Being the patentee of a screw-propeller, Captain H. Smith, R. N., who was then appointed to Her Majesty's screw frigate the " Rattler," asked me a question ; he said, " I do not like your screw vessels at all, for the axles heat, and the steps wear very fast ; do you know any mode of obviating those defects ? " I said, " I will go with you to the patentee of the soft metal bearings, and show you axle bearings of locomotive engines, which have run 60,000 miles, and do not appear the worse for it." He wrote to the Secretary of the Admiralty, and got permission to have the bearings of his axles lined in the patent manner ; and when they were so done, he had no further cause of complaint.

1688. Those were soft metal bearings, were they not ?

Yes ; I state this to show the utility of that invention, and to explain how the public might have lost that really valuable invention if there had been a commissioner who refused to certify to its novelty. Then a much stronger case has happened, and was decided on the day that I was last here, on Wednesday last, I think. In August 1843 letters patent were granted to Frederick Steiner, for " a new manufacture of a certain colouring matter, commonly called Garaucine." The invention consisted in applying to madder which had been used by dyers, and was then in the state called spent or worthless, the same process that had been previously used as applicable to fresh madder, which latter was not the subject of a patent. Garaucine is a colouring matter differing from madder, but extracted from it. Up to the period of this patent, garaucine had been extracted from fresh madder only, that had not been used in any way. All the madder that had been previously used in dyeing was thrown into the river, and it was not only refuse, but it polluted the stream into which it was thrown. This invention was a communication to the patentee from France, where it had been
(77. 9.) G G 3 discovered

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discovered that madder, after it had been used for dyeing, and was considered exhausted, still contained garauicine, which might be extracted from it by the mode adopted with fresh madder. An infringement having taken place, and an action brought, it was given in evidence at the trial that above 2,300*l.* had been received by one firm alone for their spent madder, which had been previously thrown away; that the same process produced the same effect, whether applied to fresh madder or to spent. Whereupon the Lord Chief Baron, Sir F. Pollock, declared that this was not a new manufacture which could support a patent, as the process was old, the result old, and the thing operated upon was old, and that, in fact, there was no novelty in it, and directed the jury to find a verdict for the defendants. I was acquainted with this invention, and I heard this decision. A bill of exceptions was tendered by the plaintiff's counsel, and the case was part heard in February, and the hearing completed on Friday last, the 16th May 1851, before the Court of Exchequer Chamber, the Judges being Patteson, Maule, Wightman, Talfourd and Williams. The judgment of the court was delivered on Tuesday last, the 20th May 1851, by Patteson, who said that the Judges were unanimously of opinion that a new trial must be had, as the Chief Baron had misdirected the jury. This case I bring forward to prove how incompetent even the greatest lawyer would be as a commissioner to decide on what constitutes a good subject-matter for a patent, for it is well known that whilst at the bar, the Lord Chief Baron had great practice in patent as well as in other legal business.

1689. Do you adduce this for the purpose of establishing the advantage that would result from a commission consisting of scientific and experienced persons?

It is the reverse of that; it is to show that those men who really are supposed to be the most competent, are quite incompetent to decide upon these points; my object is to benefit the public and the patentees; you may have, if you like, examiners to tell a man whether his invention is new or old, and leave it to the patentee to say whether he will take his patent or not; but I would give him an opportunity of knowing whether such a thing is old or not.

1690. You would not object to the assistance of such persons being given either to the patentees or to the Attorney-general?

No, on the contrary, if you get persons full of knowledge on the subject, they would be useful; but they ought to be very highly educated to it, and, in addition to their having ready access to all specifications, they should also have a large library containing books on the arts and sciences, for the publication of an invention is fatal to a patent subsequently obtained for the same discovery.

1691. You think that they might occasionally give very useful assistance, though you would not trust them with the power of deciding definitely?

They might give very valuable assistance.

1692. You think that neither lawyers nor scientific men could form a Board that would be competent to decide upon the question whether a patent should be granted or not?

I am most decidedly of that opinion.

1693. You are of opinion that they would do no harm if they stated that an invention was old, but you would withdraw from them any discretion, if it was old, as to granting a patent?

I would.

1694. Supposing an invention is old, is it not a hardship upon the rest of the public to be subject to litigation for an infringement of the right of an inventor who has invented nothing new?

It is very hard upon the public, and the public ought to be guarded against it by such information being made public.

1695. How do you propose to guard against that inconvenience?

By the publication of all known documents containing the history of inventions, particularly all patent documents.

1696. Suppose the case of an inventor coming to the Board of Examiners, and being told by them that his invention is old, but he insists upon taking out his patent; would it not be a hardship upon the manufacturer, not upon any other inventor who might be inclined to use that patent, to be subject to future litigation,

tion, in consequence of a patent having been granted to this inventor for that which was not new?

A great hardship, and I think a complete check might be put to such a fraud, by every petitioner for a patent being made to produce to the examining commissioners a description and drawings of his alleged invention; if old, the commissioners should write across it, "This thing is old, and you can find it in a certain place;" then such a document as that going before a jury, they would say, "This man has knowingly acted unjustly, and in the face of light;" I think that would be a sufficient guarantee to the public.

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1697. There are two questions connected with that examination; one is as to the expediency of giving the examiners the power of refusing a patent, and the other as to giving them the further power of determining the validity of a patent as for an original invention; now the last would be, in your opinion, a very dangerous power; but would there be any such danger in giving the power which the Attorney-general is supposed to have of declining to give the parties a patent, upon a certain knowledge that it was no original invention, and in so far relieving the public from the inconvenience of having to contest that which ought not to be contested?

The difficulty is to draw a line, for delicate distinctions will arise.

1698. Do not you apprehend, where those cases arose, that a patent would in such cases always be granted, and left to take its chance?

It is almost so at present, for neither the Attorney nor Solicitor-general have the time nor the knowledge sufficient for them to decide upon these things; therefore it is as though they had not such a power; and no patents for old inventions have ever been refused to my knowledge.

1699. Nevertheless, in cases where caveats are entered, it does happen that patents are occasionally stopped?

It happens sometimes, where an invention has been obtained fraudulently, but very seldom.

1700. Where there has been a previous invention on the part of the person who enters the caveat?

I think they are not stopped on that ground; they are usually stopped on some other ground than that of similarity of invention; some party opposes, knowing what the first has discovered, and says, "That is my invention."

1701. In that case, where the party opposes, and the patent is not granted in consequence of his opposition, the public is protected from the inconvenience that they would otherwise be subjected to by having to go into a court of law to defend the use of the patent?

That is a most unsatisfactory way of deciding it. If an inventor goes and gets foiled under one title, he may go again in another name, and get the patent under another title.

1702. Do you think that the certainty of obtaining a verdict always in favour of the real inventor, would be a sufficient check to infringements?

I think nothing will check the infringement of a patent; I think all good patents are invaded; the present point is as to whether there should be some previous tribunal to decide upon that question.

1703. What I gathered from your previous evidence was this, that you thought there would be no sufficient check against such litigation by giving to the tribunal, previously to granting a patent, power to investigate its originality?

I do not think that a tribunal could be formed that would be satisfactory for such a purpose, either among lawyers or scientific men.

1704. Not to the extent of refusing a patent?

I think not.

1705. May the Committee draw this conclusion, that you think certainly there ought to be no preliminary steps, no tribunal invested with the power to refuse?

I do think so, most decidedly.

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1706. That being your decided opinion, by what means do you intend to protect the real inventors, who already possess patents, from infringements?

I do not think there is any mode of doing it, except by law, as at present.

1707. Would not the consequence of that system be, that persons would apply for patents for things which had been already patented?

They do that already; but I propose to put a check to parties obtaining patents for things already patented; in the first instance, by supplying them with the necessary information as to what has been already done in that particular line; and I should not object to a Board of Examiners, of any class, for that purpose.

1708. I am supposing the case of fraudulent parties, parties knowingly going to take out a patent for a thing that was already patented?

I never knew of such a case.

1709. Would not such a case be very common if there were no power to refuse patents?

I do not think there would be one more case of that kind than now.

1710. What would be the risk that such fraudulent parties would run?

I propose, that when they send in their declarations for a patent, with a brief specification, that the examiners should say, "Consult such and such a patent, and you will see that they are the same things."

1711. But if, when he found that they were the same things, he should still demand a patent, what would you do then?

Then I would let him burn his own fingers.

1712. The real inventor would still have the protection of the courts of law?

Yes.

1713. Do you think that the certainty of obtaining a verdict would be sufficient to prevent the infringement of a patent?

I think so, particularly when such a document as I have mentioned had a statement upon it, saying, "The invention for which you are now seeking a patent is not yours;" I think no man would ever take such a case into a court of law.

1714. If that is your opinion, that the courts of law would be, if not a complete check, a certain check to infringement, would the certainty be increased by the publication, and the making known of all documents relating to previous patents?

I think so, decidedly.

1715. You think that, under those circumstances, juries would seldom be misled, or be ignorant of the subject?

I think that juries could not be ignorant of the subject in that case; those who prepared the brief would state what was known to have existed at the time the patent was applied for.

1716. Do you imagine that the proceedings in the courts of law would be very much simplified by such a publication?

Yes.

1717. And litigation, consequently, prevented?

Yes.

1718. Then the whole protection which you would give to patentees against infringement, would be the publication of all documents relating to inventions?

The publication of all documents; and I would even go further than publishing the documents in the Enrolment Office, I would publish the documents in all scientific books of mechanical and chemical inventions, and keep on classifying and classifying till all were exhausted; I am certain that that would be beneficial.

1719. With regard to patent medicines; would you publish all the particulars of patent medicines?

Certainly; and I think that would expose the uselessness of a great majority of them, as well as their danger.

1720. Would not they be constantly pirated?

I do not think that such patents ought to be obtained; at any rate I should make

make no exception in favour of patent medicines ; I think the public ought to know what they are taking.

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1721. You stated, the other day, that you had taken very great pains, and had been very cautious not to petition for a patent for an invention that might not have been new ; is that the case with inventors generally, or is it not rather the fact that they do not take steps to convince themselves beforehand ?

I think that mine is almost an exceptional case ; I do not know any friend or other person who has taken the same amount of trouble that I have ; few persons could spare the time necessary.

1722. With respect to foreign as well as English inventions, have you anything further to state ?

There are a great number of valuable inventions locked up in other scientific works. I was asked the other day to go and investigate a corn-mill, as a matter of mere mechanical curiosity ; a friend said, " I have got a corn-mill upon a new principle, I wish you would look at it ; " I went and looked at it, and I saw at once that what he had paid for as a patent, imported from America, was really old, and could twice be found in the Transactions of the Society of Arts ; now that invention is public property.

1723. Have you anything to add as to any damage that may possibly arise to the public from an invention being patented ?

No ; I think the public are greater gainers by patents than the patentees ; I took out a patent for a power-loom early in life, and for printing upon yarns ; the latter patent got into very general circulation, and was a very useful art, and before it became valuable I sold it ; I think it realized about 800*l.* to me ; the public were not injured by that ; in fact it revived a particular branch of trade, namely, gingham. I took out another patent for weaving for a part of a loom, that part of the steam-loom which is substituted for the human feet, and which governs the elevation and depression of the warp. This patent was immediately pirated, and I commenced legal proceedings, which cost about 3,000*l.* in its defence. That has now become universal almost, and I think there have been 300,000 of them made. I am still a loser from it, but the public have been greatly benefited by it. I wish to point out to the Committee, that when I made this improvement, it was merely an improvement upon a known mode. A tappet is an instrument which governs the elevation and depression of the warp-heads to form the figure in the cloth, and it would have been no hardship to the parties if I had used this instrument myself for the 14 years ; I took nothing from them ; they had the full exercise of all that the public had a right to, before. The Crown says, if you will give this to the public at the end of 14 years, you shall have a monopoly of it in the meantime. My neighbours ought not to complain ; for after 14 years they obtain what they had not before. Then, I had another patent for producing indigo blue in an artificial atmosphere, and I can assure your Lordships that it is not a bed of roses that an inventor rests upon. I think that invention took me three years to bring it into work, and cost about 3,000 *l.*, and I think that it has realised about 500*l.*, and that it is some six years old ; that invention deprived the public of nothing, but added something to the general stock of knowledge.

1724. The expenses that you have incurred for litigation in the defence of those patents have been so large, that you have derived but little emolument as yet from that which has been of great benefit to the public ?

I have derived but little, though the public has been greatly benefited.

1725. Is not that rather an argument against what you stated before ; for example, would it not have been an advantage to you, if there had been, in the preliminary stages, some means of protection ?

There would, no doubt, have been an advantage to me in the cases where I have had these law-suits, but I do not see how that could be done ; I am not a lawyer ; I am merely speaking now as an inventor. Those were all new, and they were not contested. As to the want of knowledge on the part of the parties who used them ; first, I had two Chancery suits on the loom patent, and each of the parties purchased my invention from me before they infringed it ; they found them beneficial, and then they made for themselves.

1726. They were barefaced infringements in the face of the patent ?

(77. 9.)

H H

Yes ;

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Yes; the public are well protected, but I think not the patentees. In the year 1832 I took out a patent for an improvement upon the screw-propeller; in the year 1846 this patent expired, not without having been useful; it had been used, and it is used now; but I have gained little by it. I then got a prolongation from the Judicial Committee of the Privy Council for six years further, making it 20 years altogether. The prolongation cost about 700 *l.*, as it was opposed at the Privy Council very vigorously by the Attorney-general, I think; however, there was sufficient merit and novelty in it for their Lordships to grant a prolongation for six years; those six years have gone on, and they expire next March, and I have not yet been remunerated by it even for the time spent upon it.

1727. Were you induced by the patent laws to make those inventions, or should you not otherwise have made them?

I certainly should not have made them if there had been no protection.

1728. The protection held forth in your case has been a delusive one, has it not?

Yes; but in many cases it is different to mine.

1729. Will you point out where it was the fault of the law that you did not obtain a remuneration?

I am not stating that the law was defective in that way; the point that I was referring to was this: I read Mr. Webster's evidence the other day, and he says that the patentees want sharply looking after, and that the public want protection; I am showing that the patentee, on the contrary, is not a man who preys upon the public, but that on the contrary they pillage him.

1730. Do you think that yours is an individual case, or is it the case of many other patentees?

I think it is the case of many other patentees.

1731. Is not this the fact, that it is not the want of any protection to a patentee by law, but rather a sluggishness on the part of the public, to adopt a good invention?

The public is very slow to adopt a good invention.

1732. Have you anything to state as to the damage that may arise from publication?

It may be apprehended, that if we publish all our inventions that we shall expose our arts, and that we shall give to the world all the inventions we have made. I think that that is quite delusive, for foreigners, when they make an invention, knowing that England is the best market for it, usually bring it here before they exhibit their invention in their own country, and as long as we are the largest manufacturing state, we shall have the refusal of all the inventions of the world. I think we should lose nothing by it.

1733. You have stated that you would not vest in any body the power of determining whether or not an invention should be patented. Would you vest in any tribunal the power of determining whether a patent ought or ought not to be renewed?

I think, with the Privy Council; I do not think inventors could have a better tribunal.

1734. Do you think that they are competent to determine whether or not a patent ought or ought not to be renewed?

Quite so; the question with them is, whether the invention is new and useful, and whether it has paid the patentee; I think the only fault with them is, that they do not prolong patents sufficiently.

1735. The Committee would infer from what you have stated recently, that you have referred to inventions which have generally been unsuccessful. I presume that you only mentioned those which have been unsuccessful with a view to illustrate a particular line of argument; that has not been uniformly the case, has it?

With me it has been uniformly the case, and yet the inventions have been very valuable. I may state this, that other men with better business talents, would have made more money of them; I have no hesitation in stating that they have been valuable.

1736. What

1736. What is the artificial atmosphere that you alluded to?

Any atmosphere deprived or devoid of free oxygen, which is not injurious to deoxydized indigo.

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1737. How do you define an inventor?

One who succeeds in really producing something new and something useful, in contradistinction to a schemer who attempts to succeed in what is impracticable, or who fails in that which is.

1738. Do you think that there ought to be any alteration in the law with regard to the duration of patents?

I think they are too short, very much too short for me. I have here a list of the first 25 patents that were granted by James the First. The term of the first grants of patents was 12 years, and all the rest were 21 years, except some two or three for 31 years.

1739. Would you, as a general rule, grant the same term to all patents?

The difficulty is to decide which ought to have a long, and which a short patent; some pay immediately, and some it takes years to mature, and it would be well if it could be decided.

1740. Could you suggest any mode of meeting that difficulty?

No, I think it is a very difficult subject.

1741. Would not that be a question that the Privy Council could determine; if in the first case a patent were granted for a short term, it would always be in the discretion of the Privy Council to grant it for a further term, where it appeared that the circumstances of the case required it?

Yes, but how would you decide in the first place?

1742. If all patents were in the first place granted for a short term, it would then be competent for the Privy Council to renew them for a longer term, where they thought that the circumstances of the case required it, and is not that a question which the Privy Council would be perfectly competent to determine?

Yes, the Privy Council do determine that.

1743. Would not that be rather an argument against a universally long term in the first instance?

The expense of the Privy Council is so great, and they are not liberal enough in their extensions. I think now I should like to lay a little stress upon the publication, or rather that provision of the Government for giving information to the public of what really existed. That little book [*handing the same to the Committee*] which hands down the inventions of the ancients of 2,000 years ago, is a disclosure of inventions, one or two of which are now practically at work in Manchester. It is rather an extraordinary fact, but a gentleman seeing me in Manchester one day said, "You are the very man I want." He is a manufacturing chemist of great celebrity, and he said, "Can you tell me of any instrument which will withdraw liquor from one vessel into another at a uniform flow," that is, equal quantities in equal times. I said, "Yes, I can, I will make you a sketch of one." The next day he came to thank me, and I said, "You need not do that, this is one of the inventions of the ancients brought down from the time of Hero, of Alexandria."

1744. Have you brought down your work to the present time?

Yes; the one on propelling I have, which is here; and I will show your Lordships an extreme case of two patents granted for the same invention. In 1698, a patent was granted to Thomas Savery, for working paddle-wheels by a capstan. He wrote a treatise on it, under the title of "Navigation improved, or the Art of Rowing Ships;" there was another patent granted for the same thing in 1830, to Thomas Bulkeley, and this the Committee will perceive, if they look at the two specifications and the drawings attached. Now, if the latter patentee had gone with his declaration before examiners, they would have said, this invention has been public property since the year 1684, when Thomas Savery's patent expired.

1745. And you think that that could not have taken place if there had been a proper publication?

(77. 9.)

H H 2

Certainly

*Professor
Bennet Woodcroft.*

22d May 1851.

Certainly not. The manuscripts I now produce contain the patented and other schemes for propelling which have not been patented.

1746. Those are all upon the subject of propelling, are they?
Yes; and I have more of them.

1747. Have you any idea of the number of patents on that single subject?

Yes; rather more than 400. The titles of all, up to the period when I wrote the work, are stated; they begin at 1609. There are wheels of every shape and form; it is just like turning a kaleidoscope round. I prepared these with a view of publishing them, to show the enormous wrong that was done to the public in withholding this information from them, for, virtually, it is withheld. Here is a gentleman with the paddle-wheels in the wind—(*referring to the manuscript*)—paddle-wheels striking the air, as though that were the denser of the two media.

1748. Is there anything in these that makes you think it probable, supposing they had been well known to inventors from the time of their first appearance, that they would have led to the application of paddles to navigation earlier?

No; I do not think that steam navigation ever would have commenced until the steam-engine was prepared to drive it. If the question is, if all these inventions had been known, would a patent like this have been taken out? I say no. I have known of a patent within the last few years, upon which a gentleman has spent about 11,000 *l.*; he came and consulted me, and wanted me to go and look at a boat he had been constructing. I said "It is of no use. I have seen the drawing, and it is as old as the hills, and you will never drive the boat six miles an hour. In addition to that, the invention is not yours. It has been patented over and over again." The evils I have just named, arise from the want of due information being given to the public. This is a chronological list of the indices of patents—(*handing in the same*).

1749. Does it contain actual copies of the patents?

They are actual copies of the titles of the patents obtained from the Great Seal Office; and then there has been all my work upon them afterwards, which has been considerable.

1750. Have you prepared a complete series of the inventions connected with the steam-engine?

I commenced to write an analytical history of the steam-engine and, to my great surprise, I found in "Hero of Alexandria" the whole of the elements of the steam-engine. I found every valve—the slide-valve, the clack-valve and the spindle-valve, all in "Hero of Alexandria;" and I found a metallic piston, working in a metallic cylinder.

1751. Have you any knowledge of what was the system of the ancients with regard to the protection of inventors?

I do not know.

1752. In Hero's time, what was his invention applied to?

The fire-engine. In Hero's work, he has an air vessel for causing a continuous stream. He has got a fire-engine, and he calls it a hydraulic instrument for extinguishing conflagrations. His appellation is correct, ours is not; for we call it a fire-engine.

1753. Are there none of these contrivances which are at all dependent upon the expansion of air or fluid?

He shows how we may obtain mechanical force from the expansion of steam; he treats of steam in several parts of the work. The Committee will find that the first enrolled specifications date no further back than about the year 1712; prior to that time, patentees were not under the necessity of enrolling the specifications of their inventions, and, in consequence, much valuable information has been lost.

1754. These are the titles?

Yes, as they stand in the Great Seal books; it is a correct copy of the official list. This I call the First Index.

1755. These are the originals of the printed sheets you handed in yesterday?
Yes, they are.

1756. Have

1756. Have you any classified list of inventions?

Yes, they are all here, from the first to the last; this is the title of the last patent sealed this morning—(*the same being handed in*).

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1757. Is it easy to understand from these titles what a patent comprises?

Certainly not, in all cases; the public are sometimes misled by them.

1758. Do not you conceive that it would be very desirable to have more particulars in the titles?

Much more; and parties would give a clear and specific title if they got immediate protection; they would send in a specification and drawings, and say, "This is my invention," and instead of making it as vague as possible, they would make it as clear as possible. Almost to every patent there is a reference, and if referred to in three or four works, such references will all be found in these books of indices.

1759. Is it the fact, that in consequence of this imperfect mode of publication, the same patents are imperfectly described several times over, and others not described at all?

Yes. There are many serial works which give short and consequently defective abstracts of specifications, and only one in which the specifications it contains are given in full, but it does not contain all specifications, by a large number.

1760. Have many applications been made to you for information upon this point, showing that there is a desire on the part of the public to receive information?

Yes, so much so, that I obtained an estimate of the cost of publishing these books some time back, when I found I should not be repaid the expense, and I abandoned the project in consequence. This is an alphabetical list—(*the same being handed in*).—This I call the Second Index.

1761. The other was a chronological list?

Yes. This is the third; it is quite complete; it is not bound, but it is brought up to the day. These are the heads of inventions—(*the same being handed in*).—This is the index, or table of contents under which they are classified—(*the same being handed in*).—This I call the Third Index.

1762. What is the total number of patents that you have indexed?

I have indexed all of them.

1763. What is the total number of them?

About 13,716.

1764. That is the whole number comprised in this index?

Yes, that is the whole number. I have made three different indices of these 13,716 patents: there is, first, the chronological index, then the index alphabetically arranged according to the names of the patentees, and then the index classified under the subject-matter of the inventions.

1765. You stated on a former day that there were 13,716 patents; did you intend the Committee to understand that they were all in existence?

No, I meant from the first.

1766. Can you tell how many there are in force at the present time?

There are now about 7,321.

[I have obtained an estimate of the cost of printing specifications of patents at full length, including the cost of the engravings of the drawings and the paper. As a guide to the printer who made the calculation, I furnished him with a book containing 52 specifications in full, with the drawings, being a fair average example of specifications generally. He has arrived at the conclusion, that the cost of 1,000 such books as I left with him, would be about 161 *l.* 10 *s.*, consequently 1,000 copies of each specification would be about 3 *l.* 2 *s.* 1 *d.*, and each specification would therefore cost about seven-tenths of a penny.]

The Witness is directed to withdraw.

I. K. Brunel, Esq.

22d May 1851.

ISAMBARD KINGDON BRUNEL, Esquire, is called in, and examined,
as follows :

1767. WHAT is your occupation ?

That of Civil Engineer.

1768. Have you had any experience as to the operation of the patent law ?

Yes, I think so ; ever since I first entered my profession, I have seen a great deal of the operation of patents.

1769. Have you yourself invented anything, or been mixed up with others who have invented ?

I was for many years, when my father was alive, engaged with him, and he invented many things and took out many patents ; I was much employed by him in making experiments connected with those inventions, and in preparing drawings and other documents for patents connected with them. Since then I have been frequently engaged in questions of patents in advising others, and have been frequently engaged in disputes respecting patents.

1770. Of what nature were these disputes ?

Disputes as to priority of invention, and as to the similarity of, or the difference between, machines or other subjects of patents, both of which may have been patented, or else as to infringements of patents.

1771. Have you had to defend yourself against alleged infringements of patents ?

I have had frequently to negotiate for the purpose of defending myself against parties who have taken out patents for things I was using, or wished to use.

1772. How long have you had experience upon this subject ?

I think since 1823 ; I have been very constantly engaged in it, therefore, for 28 years.

1773. Can you state generally, what is the result of your experience ?

One result has been, that I have never taken out a patent myself, or ever thought of taking one, or, I hope, ever shall take one ; and certainly, from the experience I have had, and all that I have seen of the operation of patents, I believe them to be productive of almost unmixed evil with respect to every party connected with them, whether those for the benefit of whom they are apparently made, or the public.

1774. Does not the present patent law encourage inventions to be made ?

I believe that at present it practically discourages them, for that, while it appears to offer protection and ultimate gain to parties who are inventors, it leads to a considerably smaller number of inventions than would otherwise be brought out for the benefit of the public ; and I believe that, practically, it involves very great loss upon the class of inventors as a body, a loss which, I think, they would not sustain, if there were no patents or no exclusive privileges at all granted to them.

1775. Will you state in what way you think that the operation of this law has prevented the production of new inventions ?

I will endeavour to do so ; but it is rather a complicated network of causes, and though I see it very plainly in operation, yet until lately, when I began to think on the subject, I had hardly explained to myself how it operated, and, therefore, I may have some difficulty in explaining the matter clearly to your Lordships, but I will endeavour to do so ; I wish, however, to have it understood that I limit my observations to the present state of things. I do not wish to express any opinion as to what might have been formerly the effects of patents, or whether they did originally encourage inventions or not. I believe that in the first place, they are very prejudicial, on the whole, to a large class supposed to exist of inventors, and principally from these circumstances : the present state of things is this, that in all branches, whether in manufactures or arts of any sort, we are in such an advanced state, and every process in every production consists of such a combination of the results of the improvements which have been effected within the last 20 or 30 years, that a good invention now is rarely a new idea ; that is, suddenly propounded or occurs by inspiration, but it is simply

simply some sensible improvement upon what was last done. In 999 cases out of 1,000, it is some small modification which may produce very important results, but still only a modification of something which is the result of a great number of previous inventions and improvements. The consequence of this is, that to produce a good thing you must be well acquainted with all that is done up to the present day in any particular branch. Anything you do that is good, in a vast majority of cases, is dependent entirely upon the success of previous steps which, under the present system are already exclusively belonging to individuals by patent or otherwise, and consequently, it is very difficult to bring out anything, however new it may seem, that does not depend almost entirely upon something which is already either the subject of a patent, or already the property of the public, and for which, therefore, you cannot properly claim an exclusive privilege. In the present day, when a man thinks that he has some good idea, whether it is improving the parts of a machine, or some new mode of constructing an article, or some new article itself, his first idea is, immediately, a patent, and a fortune resulting from it. He shuts himself up, and if he is a workman or a man of the poorer class, in nine cases out of ten he deserts his ordinary occupation, and he dares not consult his fellow-workmen or anybody else likely to know if the thing is new, or how much better it might be done in some other way, or whether it is at all feasible; but he shuts himself up and works at this idea, and incurs by that means great expense and loss of time and money in no way connected with what is ordinarily talked of as the expense of taking out patents, which forms but a small portion of the cost of working out an invention; but he loses a great deal of time and money in the elaboration of this idea in secret. That is the only way which he is taught to believe that he has of making anything by his inventive faculties, or his ideas; and the chances are 100 to 1, that if he does succeed in taking out a patent, he discovers the next day, that the thing has been better done before, or that if he had consulted a workman more immediately engaged in the branch to which his supposed invention relates, he would have found that it was impracticable, or was too costly, or that there was no demand for the particular article produced. I see that going on round me every day, that the poorer class of inventors ruin themselves by the attempt to work out some idea for the sake of getting a patent, while, in all probability, if the man had gone to his master, and said, "Well, it strikes me, that by such a means, we should be able to get through more work and do something better; what do you think about it?" The chances are that most masters would, if they saw that it was a good idea, give the man 1*l.*, or a 5*l.* note; and the man the next day would be at work at something else, and you would have out of that man's brains an immensely greater portion of invention, and, I believe, he would get much better paid by it. I believe he would really make money, whereas now everybody acquainted with these men know that they lose money by it, and that an inventor, a schemer, is a poor man who is more likely to go to the workhouse than anything else.

1776. You are talking of the reward that he would get from the master, supposing the master was liberal?

Yes, but if not, the result would be this, that a man who is an intelligent workman of that sort, even though he happens then to be working for a master who has not the sense to reward him, becomes more valuable as a workman; and it is a principle that is quite well enough understood in this country, that he will be paid more, and employed accordingly, like a clerk who writes a good hand, as compared with one who writes a bad one, and in the end he will get better paid. And, unquestionably, among manufacturers, where there is a workman who is useful to his master, constantly seeing how things can be done better than before, even if it does not lead to the master giving actual premiums, it makes that man a more valuable workman; and if there were no patents, these men would become necessary parts of any large establishment.

1777. Do you think that the expectation of uncertain remuneration from the master would act as an equal incentive as compared with that of obtaining an exclusive patent, and induce a workman to turn his attention to improvements in machinery?

I think it would be a much more active cause, and for this reason, that at present it is a false and fictitious hope that excites him; he does not think how

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cheaply he can make a good thing, but how best he can appropriate something, and from that moment I look upon him as a ruined man; he is dreaming for ever after that, how he can keep his idea to himself, and take out a patent for it, which shall be so worded, and which shall be brought out in a manner to escape another patent, rather than seeing how quickly he can make something good. I do not believe that you would have the same class of men working at inventions, but I think it would be a great benefit to the public, and that the class of men at present called schemers, who I believe are a pest to society, would be got rid of; and I think that intelligent workmen would really turn out a great deal in the course of the year of what is good in the shape of ideas, and on the whole get well paid for it.

1778. You think that few valuable inventions have proceeded from that class of men whom you call schemers?

I think so.

1779. From what class of persons should you say that the most advantageous improvements have proceeded?

I think you must draw a distinction between those who appear as inventors, and the parties from whom the ideas have really proceeded; I think they come generally from men of observation rather than inventors. Circumstances attract his attention; he sees a result produced which did not occur to him before, and being an intelligent man, he sees how it may be applied, and some opportunity occurs, by accident, by which he can apply it, or suggest it to other intelligent men, and that is how the best inventions have come about; they have not been certainly through what may be called professional inventors.

1780. Should you say that the greater number of inventions have proceeded from practical operatives, or from scientific men?

I think that the greater number of inventions have really originated with practical operatives.

1781. Do you think that there would be an equal inducement for a man to turn his attention to improvements if there were no patent laws, as compared with the present state of things, which lead him to the expectation and hope that he will obtain some exclusive advantage from the discovery of some new improvement?

I feel certain of it; I have felt it very strongly, and it always struck me as surprising that it was not seen by everybody else; but we have so long been in the habit of considering, that the granting of an exclusive privilege to a man who invents a thing is just and fair, that I do not think the public have ever considered whether it was, after all, advantageous to him. My feeling is, that it is very injurious to him.

1782. Is it not usually the case with the ordinary class of inventors, that they are compelled to sell their inventions for a sum of money to some one who is better able to give effect to them than themselves?

Yes, I believe this to be amongst the reasons, as far as the poorer class are concerned, why patents are of no advantage to them, that almost invariably when the patents come before the public, the beneficial interest in them is not held, to any great extent, by the original inventor, but that it has changed hands many times before it comes out before the public. I should say, that in the majority of cases, the original inventor gets little or nothing.

1783. Does not the original inventor generally obtain some remuneration when he parts with his invention to a person who possesses the necessary means of bringing it out?

Yes, he generally has some consideration for which he does it; but looking at what I know to occur, my recollection of cases is this, that in most cases the original inventor has a very small beneficial interest left in it, and in most cases I doubt whether even in patents that are saleable he is much the gainer on the whole, taking into account his previous loss of time and money.

1784. You have looked principally at the operation of the law as affecting inventors of the lower class; but as regards the interest of the public, it is clearly for the interest of the public not only that an invention should be made, but that it should be divulged; and do you think that leaving those who have the first advantage of an invention without any protection whatever would be likely to induce

induce them to communicate to the public the details of that invention, in order to enable others to use it? *I. K. Brunel, Esq.*

22d May 1851.

No; there must be of course, to a certain extent, that drawback; there will be a tendency, where it can be done easily, to keep it secret, but I believe that the cases in which that can be done are so few that even that evil would amount to very little; but there is a much greater evil at present, not only are there numerous cases where, although patents are taken out, the parties keep secret certain processes connected with the operation, by which they still keep the exclusive application of the thing in their own hands; this will probably happen more frequently, but the chances of the few cases in which the parties will be able to keep the secret, I do not think will at all balance against the cases in which new inventions are not fully developed on account of the exclusive privilege, because there is a very great clog put upon improvements, now, of patented things, by the possession of that monopoly by the patentee, and which, I think, deprives the public of more good things than the secrecy of unpatented things would do; it acts in this manner; it is very difficult now, with the immense number of patents that exist, to take out a patent in such words as to secure the privilege; the utmost precision must be used, as general terms would include something that has gone before; when once it is taken out, the patentee, even if he saw that a most material improvement could be effected by a slight change, but that such a change is not precisely foreseen by the words of his patent, he not only does not introduce the improvement, but he is obliged to profess strongly that the thing is perfect as it was described, and so he impedes the introduction of such an improvement; if, for instance, I take out a patent for a book, and a particular mode of binding it, in the specification it is very constantly the practice so to specify as to make it new, and if I happen to introduce into my description something of this kind, that the book was red, and I found that another sort of cover that would happen to be blue would make the whole thing a great deal better, not only I dare not use the blue thing, but I am obliged to declare that the blue is very bad, and that the red is the right thing, and to stick to that to the last, in order not to risk my privilege. There are several things before the public, and I would mention one; take the Electric Telegraph Company; I believe we should have had that telegraph much improved, and that it would be working much cheaper, and that we should have had it all over the country, but for the misfortune they laboured under of having patents which they were obliged to protect, and they were obliged to buy up everybody's inventions, good or bad, that interfered technically with theirs; I firmly believe that they have been obliged to refrain from adopting many good improvements, which they might have introduced themselves, but did not, because they were afraid that it might shake their patent, and I believe that the stoppage put to inventions by this state of things is far greater than would result from secrecy.

1785. The evils which you have pointed out seem in a great measure to depend upon the great difficulty of taking out and renewing patents; supposing a different system were established, which enabled a capitalist, under such circumstances, easily to renew and extend his patent, would not that remove the objections you have mentioned?

Not at all; I think it would simply increase all the evils in quantity; the greater facility you give to patents, the greater will be all those evils; the quantity of them; that is my view; I admit that I am a great advocate for cheap patents, and for giving every possible facility.

1786. Do the original inventors of the electric telegraph derive much benefit from the present patent?

That depends upon whom your Lordship calls the original inventors; Messrs. Cooke & Wheatstone derived, I believe, a large sum of money from the electric telegraph; and I believe you will find 50 people who will say that they invented it also; I suppose it would be difficult to trace the original inventor of anything.

1787. Were they not the persons who first took out a patent for the use of the electric telegraph?

I think there was a question of priority in that case, and that more than one patent was taken out at about the same time.

1788. They were the first that put it into practical operation, were they not?
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They were the first; but there have been plenty of persons who have claimed, whether rightly or wrongly I cannot say, subsequent modifications of it; and the vast variety of apparatus which may be patented connected with the electric telegraph has led to their being under the necessity of buying up an immense number of patents.

1789. Was a patent taken out in the United States for the use of the electric telegraph?

I think they have taken out a patent in America; I am not quite sure, but I do not think that Messrs. Cooke & Wheatstone have laid down any lines in America.

1790. Can you state under what laws or regulations the electric telegraph is used in America?

No, I cannot.

1791. Do you know whether the electric telegraph is under the operation of the patent laws in America or not?

I do not know: in America, it has happened that there were several distinct companies, and it really amounted therefore to there being no patent.

1792. Did they not obtain a license from the patentee for the use of it?

Probably; but if there are a number of various patents for nearly the same thing, in different hands, sufficient to cause competition, then I admit that it does no harm, or rather the exclusive privilege does not then exist.

1793. Are you aware that an Act of Parliament was passed, giving a special monopoly to the Electric Telegraph Company?

I recollect their getting an Act renewing certain powers, but it cannot have given them a complete monopoly, or any greater than their patents gave them, for there are other companies which have been formed; I have been concerned in negotiations with parties for laying down a totally different telegraph, independent of that company. The other companies may not probably have succeeded in possessing themselves of patents which enabled them to work clear of the patents of the old company, for they possess so many, that it is almost impossible now to erect a telegraph which shall not interfere with some of their patents; but otherwise they have no recognized monopoly. There is one party, Mr. Brett, who was only the other day in negotiation with a railway company, in which negotiation I was concerned, for laying down a line distinct from the Electric Telegraph Company.

1794. Does not it appear, if in this country, where we have a very cumbrous system of patent law, there has been that monopoly established, and if in America, where there is quite a different system, whatever that may be, the electric telegraph has been developed and made extensively useful, that it is not the mere patent law which is the obstacle to that?

I do not quite see that; if in America, in spite of the patents, but owing to fortunate circumstances, ten or a dozen individuals, either possessing separate licenses or having some distinct patents, have succeeded in producing competition enough really to throw the thing open, that is a fortunate remedy of the evil; but here, unfortunately, it has not been so remedied; the system of the patent laws has enabled the company to buy up every possible shape in which the thing can be made, so that if you introduced to-morrow a very decided improvement, the chances are 100 to 1 against your being able to make it clear to others that your improvement could be introduced.

1795. These patents operate, in your opinion, as a great obstacle to further improvement?

Yes; I think the Electric Telegraph Company, from my knowledge of them, have been prevented from adopting improvements which they themselves would have been anxious to adopt.

1796. You stated, did you not, the difficulties that in your experience have arisen with regard to the electric telegraph being patented, and being the subject of various patents in this country; with regard to the American system, you are called upon to answer questions as to a supposed state of things of which you know nothing?

Yes, I wish to confine myself to that which is familiar to me.

1797. The

1797. The original objection which you raised to the existence of the patent laws, and to support your objection to their operation, you stated that the electric telegraph in this country had been very much impeded by the existing patent laws. If it should appear that in America, where patent laws exist, but of a different nature, the patent laws do not prevent the general introduction of the electric telegraph, and to a much larger extent than in this country, is it not a fair inference to draw, that it is not the existence of the patent law which has been the obstacle in this country, but rather to some defects in the English patent law, which do not exist in the American law?

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I do not think so. I am told that there are patent laws in America, and, nevertheless, there are telegraphs extensively employed. I really do not know the circumstances, and I cannot pretend to state the reasons; but I do know, of my own knowledge, that, in England, the existence of a great number of patents for different forms of telegraphic instruments, the majority of them not being good, but still capable of being patented, has first of all involved the Electric Telegraph Company in an enormous outlay for the purchase of patents, and this buying-up has been to secure to themselves a monopoly; and, secondly, that state of things has, to my belief, prevented them from actually introducing improvements of their own, because they might have endangered their own privilege.

1798. In reference to the question put to you last, respecting America, may there not be local reasons, or social reasons, which have prevented the great multiplication of patents in that country which have taken place in this country; or may it not have happened that the first invention was fortunately more successful than the first inventions in this country were, and that in that respect America has not been exposed to that competition of inventions which has been so prejudicial here?

I should think it very probable; and I should think that as yet, in America, they have not got into the extraordinary complicated state in which we have got in England, where really now people not only take out patents for what they conceive to be good inventions, but they take out rambling patents to cover every possible shape of the same thing, in order to protect themselves. That is one class of people; and there is another class who make a trade of it, by which they take out patents that are very comprehensive; they rarely have the ideas themselves, but they include so many other ideas in their patents, that you cannot move without dealing with them for the use of their patents. There is, I say, a practice which has grown up in this country, of taking out a rambling patent for a variety of things very similar, to cover some other thing for which they have taken out a patent. Take, for instance, railway wheels. There are patents for every conceivable fashion of railway wheels taken out, and rather to cover some possible shape of a wheel than because that the man believed there was any particular advantage in it.

1799. Do not you think that the expense has been one great inducement to persons to take out these comprehensive patents, in order to include as great a number of things as possible?

No; I speak of separate patents. A man will take out several different patents for different things, most of which are really useless; and if you ask him in private, he will admit that it is for the sake of covering and better protecting some single idea or manufacture in which he is interested. There are people who take out patents very comprehensive, but without a single good idea in them, and for things which ought not, for their own sake or for the good of the public, ever to have been patented; but, because they are very comprehensive, we are obliged to deal with them.

1800. This is an evil incidental to the caveat system, is it not?

No, I think it is incidental to the system of patents. I do not assume any particular mode of taking out patents; I will assume that the best possible scheme is devised by which you do what I suppose is thought to be right, namely, give an exclusive privilege to a man who appears to be the inventor of something. I will suppose no caveat or previous specification; that all that is passed over, and you get a patent; still you would have just the same interests at work. For instance, I want to be a manufacturer of wheels; I do not care much about a patent; I take out a patent for what I think would be a pretty good shape, but

I. K. Brunel, Esq. I take out several others for other shapes, in order to comprehend a great variety of forms of wheels, so that no one else can manufacture any of those shapes except me. Surely that is of no good to the public, because if after that a third party has really some good idea with respect to a wheel, not only he cannot get a patent for it, if it has been included in the first patent, but he is deterred from doing anything in the matter.

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1801. Do you think that there would be the same inducement to parties, if there were no patent laws, to incur great expense and labour to improve and bring out a perfect invention?

I really believe that there would. I do not think that they would be exactly the same parties, but that they would be parties much more capable, manufacturers and others, like myself, would do it, who had means at their hands for trying experiments; they would do it a great deal more than at present; at present I dare not take a step in introducing any change in the manufacture of anything, because I am pounced down upon by one person or other who has patented something that resembles it.

1802. In your own case, if you have any workman in your employ who thinks that he has made a discovery, can he communicate it to you, and leave it to you to work out, or will he take it to somebody else who may enable him to obtain a patent for it, and so get an exclusive advantage?

In most cases it is as your Lordship last suggested, that the man's only idea is this, "Oh, I must take out a patent for this;" and if he came to me, I certainly should say, "I will have nothing to do with patents, and cannot help you." The chances are, and in practice it is so, that he immediately tries to find out some people who deal in patents, and to assist him in bringing this out as a patent, but always only if it can be patented.

1803. If no patent laws existed, do you think that at the time the discovery presented itself to the mind of this man, he would communicate it freely to you, and that you would make all the necessary exertions in your power to bring it into effectual operation?

I believe I should. I do not say that everybody would do the same; I think it would amount to this, that the man would think over it a little, and get it into a shape to do him credit, and then, if he had a good master, he would show it to him, and if he thought he could make anything of it, he would give the man a pound or two, which would be really earned, instead of hundreds being dreamt of but never touched. Eighty or ninety out of a hundred so-called inventions, at present are worth nothing; a man thinks he has made a discovery, and goes to work, and never ascertains whether it is good or bad, till much time and money is wasted upon it, and a patent is taken out. I believe that one per cent. is very much beyond the proportion of patents that are good for anything.

1804. If there were a better system of indexes and printed specifications, and if the poorer inventor were able provisionally to register his design, so as protect himself, would not that obviate some of the inconveniences to which you have alluded?

I do not think it would, for this reason; the number of them is already immense, and they will increase. The more you improve the patent laws, the greater the number that will be taken out. The number would be so great, that it would be impossible for any verbal description to be able to form an idea whether your invention is included in what another man has patented or not. You must look at the drawings, and you must look at the description, to see whether it really includes the idea that occurs to you. The labour of doing that would be worse than what a poor man goes through now. The way in which the things are patented over and over again by persons who now have the means of inquiring, really is quite extraordinary. There are a few striking instances of it in the Great Exhibition, where there are very beautiful examples of the oscillating engine, which has been patented by several persons. Mr. Penn is a great manufacturer of them, and also Mr. Maudslay. I remember Mr. Joseph Maudslay, when he invented it a good many years ago, and he took out a patent for it, yet you may see at the Exhibition a very beautiful example of one of Penn's oscillating engine of the present day, and alongside of it, on the top of Messrs. Bolton and Watts' large engine, a little model of an oscillating engine patented by Mr. Murdoch, of Messrs. Bolton and Watt's establishment, in 1785,

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and it has been patented, I dare say, a dozen times since. Mr. Maudslay, at all events, was a party who had as good an opportunity of discovering whether the thing had been previously patented or not; but the number would be immense, and the difficulty very great, of ascertaining, without reading through the patents and looking through the drawings, whether or not your idea had been patented or not.

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1805. Are you not aware that there has been the greatest difficulty in ascertaining, for want of proper indexes, what patents were in existence?

Yes, still patent agents have the means of doing that, and you must always be in the hands of agents. No man himself could, any more than he could determine points of law, ascertain whether a thing has been patented or not; you must go to a man in practice.

1806. With reference to those cases in which you speak of a person taking out a patent, in order to exclude others, do you not consider that that would be in some measure obviated by requiring a payment at a subsequent period after taking out the patent, so that if a man desired to continue the exclusive advantage of that patent, he should be forced to make an additional payment?

But he would desire to continue it. Suppose a man takes out a patent, which accidentally—it is very generally intentional—is rather comprehensive, and embraces something which he has never fully worked out, but which I next day come and bring into successful operation, without knowing what he had previously done. I believe that that would increase immensely the evil, and you would have fifty fishing patents where you now have one. At present a trader taking out a fishing patent to cover several things, has to pay a large sum of money; if you give a power to take it out at first very cheaply, and then enable him to renew his lease, they will be taken out in swarms, and it would be a very safe trade. I will mention a case. A man would take out a patent for an improvement in railway carriages, good general terms, and introduce a good many things into it of various forms and shapes, many would probably be very impracticable in shape. I, in the meantime, happen to be at work upon something of the sort, and I succeed in making a good spring; that, to a certain extent, is included in his patent. If he could renew his patent after that at a small annual sum, he would do it, and make me pay a royalty for taking his invention.

1807. Do not you think, that if there were no patent laws in this country, there would be greater inducements to parties making discoveries to take them to America and France, where patent laws do exist, and so give those countries a priority in the use of discoveries that might be advantageous to the manufacturing arts in this country?

I think that might operate for a year or two, but only for that time, other countries must drop their patent laws too, if we do, as we should, by the next post, get the thing free; the patent must be in America as well, and as clearly defined, as in England, and which, according to our laws, must be sufficiently clear that a workman can make an apparatus, or a commonly intelligent chemist can follow the description in the specification; if that is done in America, in the same definite way, we should soon have the thing in England.

1808. You think that no considerable time would pass by before we had it here?

No, the next post would bring it; and, as far as the English public is concerned, it would be a benefit.

1809. Has it not been stated, that one effect of our patent laws is, to lead persons in different parts of the world first to attempt to introduce their patents into England?

England is the best market for inventions, and I quite admit the fact that foreigners, generally speaking, endeavour to sell their patents first in England; the recommendation given to it by its being sold in England is conclusive everywhere else; there are very few inventions indeed for which England is not, in fact, almost the only market, and England is the market almost always for which the invention was made; I do not recollect at this moment how the patent law stands in England and in France as to priority, whether having taken out a patent in England, you can patent it in France; I do not know how that is; I believe the fact is, that patents are taken out first in France.

I. K. Brunel, Esq. 1810. Is it the fact that in France no patent will be granted if an invention has been published in this country previously?

22d May 1851 (Mr. *Webster*.) I believe that if it has been published in this country it will not be granted, it may be patented here first.

1811. (To Mr. *Brunel*.) Would not that operate as an additional inducement to a party to take his invention first to France?

He patents it first in France now, but I believe it would come to England first, because it is the best market.

1812. It appears to be your opinion, that, generally speaking, the patent laws are not necessary in order to encourage inventions; does your observations only apply to those discoveries which may be made by scientific men, or to those improvements and processes likely to be discovered by manufacturers or workmen, or does it extend also to certain inventions which require a long time to bring to maturity, much thought and much labour, but being brought to maturity are of easy manufacture, so that they can be easily adopted by any other class of persons?

My impression is, that in every class of inventions you would practically in the end have a more rapid supply and increase of inventions than you have now; I believe that men of science, and all those who do it for pleasure as well as for profit, would produce more, they would be less interfered with by existing patents, and they would really produce more; I believe that the working class, the smaller class of inventors, would introduce very much more. With respect to that class of inventions, which I believe to be very few in number, though they are talked of very much, which really involve long-continued expenses, I believe they would probably be brought about in a different manner; that instead of incurring expenses, and continuing a long series of experiments in order to produce something perfect which you endeavour to bring out in a shape to be patented, and to make a good deal of money by; I believe the ideas of inventors would be communicated at a much earlier stage; that 50 people would be following the same track, and producing results much sooner, and much better, and much more perfect, than the one man who now works at it for years to produce it. I feel very strongly a case in point, where, for 12 years (it was one of those few cases where a long series of experiments has been continued and money spent), I continued for my father, at very considerable expense, a long series of experiments for applying condensed gases as a motive power. Now, I believe, that if instead of working at it myself, it had been the subject of discussion, and had been talked of more generally in the world, it would either have failed a great deal sooner, and my father would have saved his money, or some good would have come out of it, instead of its becoming a dead letter.

1813. Would it not have been as likely that you would have proceeded with the experiments in the hope of obtaining an invention which you could keep secret?

I do not think that the same class of people would; a manufacturer who discovers some chance effect of a dye, or a little improvement of that sort, will keep his secret as long as he can, but the class of persons who work systematically at a series of experiments are, generally speaking, men who, I think, would not do so; the same turn of mind does not lead those sort of men to be keeping a thing secret in hopes of excluding it for ever from the public. My father was in the same position as workmen are; they know no other way of deriving a benefit from a thing than working it, to produce a patent; therefore, a good deal of money, and a number of years were spent, and, as it proved, wasted upon this series of experiments, which, most likely, many others would have done better than I did, and perhaps something might have come of it, whereas it was left, in consequence of my father's engagements, almost solely in my hands; mine was the head that it profited by, and the thing failed.

1814. Do you think that your father would have been disposed to expend so much money, and to embark in such a series of experiments, unless he had expected some great benefit to result?

No; but I believe that some good result might have been produced without the same expense.

1815. Do you think that some good result might have been produced by the direction

direction of many minds to the carrying into effect of certain partial discoveries or certain partial contrivances, which you say otherwise failed? *I. K. Brunel, Esq.*

Yes; that is what I mean.

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1816. Do you think that the same money would have been expended upon it, and the same experiments carried out?

No; I do not think it would, because the blunders that I made would probably not have been made, and the thousands of pounds that were spent would have been saved, and which produced no effect; better ideas would have occurred to others, and simpler modes of trying the experiments.

1817. Still though but of rare occurrence, are there not some cases in which very considerable expenditure would be involved in carrying to perfection some improvements?

There are a good many of such cases, but I think they arise very much from this circumstance, that it is one head and one mind that is devoted to a thing, and therefore, of course, a great many mistakes are committed, and the best mode is not always adopted to arrive at a point; but if it were more generally discussed, I believe that the point would be arrived at at much less expense, and in a much shorter time.

1818. Supposing the present state of the law to be amended by a system of granting a privilege to be continued, do you see any necessity for protecting foreign inventions brought into this country, or do you think that an invention, being once used and published abroad, no monopoly should be granted in this country?

I do not exactly understand how that can be provided for, without at the same time endangering the patent that is taken out by an inventor in England. If publication abroad is publication in England, then publication abroad may damage a *bona fide* invention in England; and I think, if justice is sought to be done, that that is rather hard. If a man is permitted to take out a patent on the ground that it is new to him, and has not been in operation amongst those parties over whom you give him the exclusive privilege (because you cannot give him an exclusive privilege abroad), to say that because somebody has published it abroad, he not knowing it, his patent in England is to be damaged, I think, would be perhaps an injustice, and might be dangerous.

1819. Is not the most plausible reason put forward by those who support the system of patents, that it is an encouragement to persons to invent something new, although it may be useless as an invention; does it in your opinion encourage the introduction of things which are now used abroad?

I think it does, to this extent; if a thing is known abroad, but has not been used in England, it must be because that knowledge has not reached England, or that there is some other impediment to its being used; and therefore a man who imports it, really produces the same benefit to England as if he had newly invented it; the only cause in England of its not being known is, that it has not been usefully employed, or published in any way to make it useful.

1820. Is not that inconsistent with what you stated just now, that supposing the United States were to encourage English inventors to invent for that country, instead of their own, the inventions would come back to this country by return of post?

So I think they would; and I believe that anything that would destroy patents in England, would be good for the public; but assuming that patents are granted, I must assume that it is done from a sense of justice to persons, and for the encouragement of inventors. I disapprove of this, but I was bound to assume what your Lordship put before me, and to carry out the principle, you must, I think, of necessity include the man who brings from any country, or any part of the world, something that has not been published in England; but it is all against my view of what is the interest of the country.

1821. Do you think that in the case, not of an obscure invention, the use of which had not been known in France, but of some very recent invention in France, patented there or not patented there, but imported by a traveller into this country who had seen it in use, that there is any reason why he should have a patent for that as if it was his own invention, at the expense of the public?

I think not, as a question of justice; but I go further than that; I do not see
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any reason why a man who has an idea excited in his mind by circumstances around him, which are in all probability producing the same ideas in other persons' minds, and in many of them producing much better results, has any right to an exclusive privilege for that idea.

1822. Is it the fact that there is great concurrence in inventions?

Invariably ; and it is a very curious fact, that almost in every case you will find, if you happen to get at a knowledge of the circumstances, that the same idea is occurring, as it naturally would, to various people at the same time, and I may say that there is no such thing as inventions, but they are mere observations that a man makes of things that he sees before him ; he sees their applicability to other circumstances, and makes what is called an invention, and if there happens to be a demand for the thing at the time, it becomes a useful invention, and in 99 cases out of 100, it requires various circumstances to be brought into operation to bring out an invention.

1823. Does it not very frequently happen that conflicting claims to inventions arise out of some previous communications, and the knowledge of one party having been acquired by several others?

Not of the good ideas : all that sort of thing occurs very much with the inferior things, which ought never to be patented ; not so with regard to the screw and other things which are really useful to the public.

1824. Was not it the case with one of the greatest improvements of our time, namely, steam navigation ; do you suppose Fulton to have been the original inventor ?

I have no reason to suppose that he was, or was not. There were many people at the same time, and soon after, who were proposing those things, and very many of them very distinct from each other. These things are all so progressive, that it is impossible to decide when was the first, and when, exactly, each succeeding step. Long after Fulton's time, within my own recollection, I remember when my father succeeded in persuading the Admiralty to allow him, partly at his own, and partly at their expense, to make an experiment with a steam-boat that he asserted would go to sea. He succeeded, with difficulty, in getting permission to fit up a boat with a small steam-engine and paddles, because he asserted that it would be able to go to sea ; and I remember the Admiralty being dissuaded from trying it, because it was said that the paddles could not properly work at sea ; yet it had been previously invented, and perhaps done ; but all these things are progressive.

1825. That was after steam had been applied to the propelling of ships, was it not?

Yes, but the thing was so little advanced, one can hardly say that anybody was the originator ; I believe that hardly anything is ever invented. Long before Fulton, we have all heard that such things had been done ; that vessels were made to move by paddles worked by men.

1826. Then you think it is extremely difficult to estimate the amount of merit due to any inventor as to any new invention ?

Yes, I believe it to be quite impossible.

1827. Speaking of concurrent inventions, you would say that that was by no means the best invention which wins the race ?

I believe it is rarely so ; the chances are entirely against it : I believe it is rare that the man most able to work it out, and who really has arrived at the best collection of ideas upon the subject, is the patentee.

1828. He generally finds himself anticipated by some more rapid projector ?
 Yes.

1829. Then he is prevented by a patent, then existing, from perfecting his invention ?

He ceases to feel any interest in the thing, and rather throws cold water upon it.

1830. Are the Committee to infer, from your evidence, that supposing a system of patent law were established, including a tribunal for the purpose of determining whether an applicant was entitled to a patent on the ground of the novelty

novelty of his invention, there would be great difficulty in determining whether it had existed before? *I. K. Brunel, Esq.*

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It would be impossible, I believe, to determine whether it did not previously exist; if there are five or six people doing the same thing at the same time, and having the same ideas, it would be impossible for anybody to determine that one should have priority over the other; one may live in London, and may have the better opportunity of taking out a patent, and the others may be in the country, but he is not therefore the first inventor.

1831. Supposing a patent were applied for, and the invention were shown to have been in use elsewhere, you would not grant a patent in that case, would you?

No; but who is to have the power to sweep the whole country to ascertain that it is so?

1832. It was stated the other day by a witness, that invention was more rife in America, and that fact was attributed to the greater facility of obtaining patents; do you coincide with that view of the matter?

I would not venture to speak with respect to America; I cannot see any reason to suppose that invention is more rife in America than here, because everything good ultimately reaches England, and we therefore know here all that was invented of good in America up to within a few months, and we know all that has been invented in England, and taking the total number of good things which thus comes to one's knowledge, although a vast number of beautiful inventions come from America, yet the great majority of the whole are English.

1833. Do you think that there are new processes very applicable to the manufactures in this country, which are known in France or the United States, and which are not introduced into this country?

I have no doubt there are many in France and on the Continent, and I suppose we are better acquainted with what is done in America than on the Continent.

1834. It is the case, is it not, in different parts of the United Kingdom, that there are certain processes used in one establishment which are not used in another?

Yes, to a very great extent; in travelling about from one manufactory to another, it is curious to observe the very great difference in many processes; the manufacturers do not seem to know so much as you would expect what is done at other manufactories.

1835. The result of your evidence is, that you are very decidedly of opinion that the whole patent system should be abolished?

Yes, I think it would be an immense benefit to the country, and a very great benefit to that unfortunate class of men whom we call inventors, who are at present ruined, and their families ruined, and who are, I believe, a great injury to society.

1836. And you think that those consequences, such as ruin to inventors, and evils of that description, would subsist equally though the patent law were made simple and more effective?

Yes, I think that they would be much increased; and, if patents are continued, I hope that the principle will be carried out thoroughly, and then it will not stand for two years; I think that would put the principle to the test; if it is a right principle, it should be carried out fully; make patents cheap, and have plenty of them.

1837. Is there any additional information which you could give to the Committee upon this subject which has not been elicited by the questions that have been put?

I do not remember any at the present moment.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Monday next,
One o'clock.

Die Lunæ, 26^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.*Henry Cole, Esq.*

26th May 1851.

HENRY COLE, Esquire, is called in, and further examined, as follows :

1838. DO you believe that a change in the patent law has been very generally demanded ?

There has been strong evidence of the necessity of a change afforded during the last 20 years ; a demand constantly recurring, but taking a peculiar urgency at the present time, owing, I believe, to the exhibition of the works of industry of all nations.

1839. Is the change demanded by inventors, or by manufacturers ?

I should say it is demanded by inventors very strongly, by all persons who have any connexion whatever with patents, even by patent agents themselves ; by all persons who have thought upon the jurisprudence of the subject ; by lawyers practising ; and your Lordships have now evidence of that desire in the two Bills which are before the Committee. The British Association have been paying constant attention to the subject since 1836. The most active members of that association being men of science, such as Sir David Brewster, Mr. Babbage, Mr. McCulloch, Professor Wheatstone, Sir Snow Harris and others.

1840. Do you consider that the Report of the Council of the Society of Arts embodies the views of that society ?

It fairly embodies the views of the whole of the members named as constituting the committee. I do not think there were more than one or two divisions, and there was generally a great harmony of opinion among them upon the subject. It also embodies the views of the Council to whom it was reported, and who published it. And all the evidence which has subsequently come before the Council of the Society of Arts, shows that it is pretty generally approved of by the members at large.

1841. I do not see the names of the gentlemen you have repeated as being on that committee ?

Those names were on a committee formed out of the British Association, not by the Society of Arts. The names of the Society of Arts Committee are printed in the Appendix. The other associations which have been active in the matter are, in London, "The Associate Patentees and Proprietors of Patents," "The Lambeth Patent Laws Reform Association," and the Inventors' Association in London. There are, besides, a "Manchester Patent Laws Reform Association," a Committee at Birmingham, a Society for promoting Scientific Inquiries at Dublin, and there is a report from the Society for promoting the Amendment of the Law, of which Lord Brougham is chairman. All of those bodies have issued expressions of their opinions and views on the subject.

1842. Are those persons generally inventors or patentees ?

I think the majority of all the members would be found to be inventors or manufacturers, but at the same time they represent various other classes ; the Law Society chiefly represents lawyers ; the Manchester Society, chiefly manufacturers ; the Dublin Society, chiefly scientific men ; the British Association, scientific men. With respect to the Committee of the Society of Arts, the only particular feature about it is, that, representing generally all classes, it does not represent patent agents.

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1843. Most of the gentlemen whom you mentioned as connected with the British Association are inventors, are not they?

I think it is likely that that is the case.

1844. You mentioned Sir David Brewster and Mr. Babbage?

Yes; and Professor Wheatstone, Sir Snow Harris and others; there are engineers also. I find the names of Mr. Simpson, Mr. Whitworth, Mr. Hawkins, Mr. Roberts, C. E., and Captain Chapman, of the Royal Engineers; others may be inventors, but undoubtedly they are very eminent men of science. They would probably represent the inventors' phase of the question, rather than the lawyers' or the patent agents'.

1845. The Society of Arts did not admit patent agents upon their committee, did they?

No; they rather purposely kept them out, partly because it was thought patent agents were not disinterested parties in the investigation; they were not the parties who had to pay or to suffer, but the parties who gained by the present system, and lost nothing. They purposely kept out many lawyers; the lawyers were considered to have stated their views in other committees, and it was thought that there was hardly any fresh views to be learned from them.

1846. Do you consider inventors perfectly disinterested persons as regards the public?

They are as disinterested as any other class of society, who seek to combine their own advantage with the good opinion of the public, depending upon the public wholly for securing their own advantage.

1847. Is not this a question as to the extent to which the free rights of the public should be limited for the benefit of inventors?

Not, in my opinion, different from the free rights as connected with everything else, land for instance, and every other description of property. All rights are limitations put upon the wishes of some classes; I think patent rights are no peculiar limitation put upon the public wishes, because I think if the public were free to plagiarize or pilfer inventions which result from the labours of inventors, the same principle might be extended to the results of every other class of human labour.

1848. When you are proposing to legislate specially upon a subject which concerns the interests of a particular class, do not you always consider that the authority of the opinion of that particular class upon that special object is given under peculiar circumstances?

In my view, the interests of the public and of the inventor are the same. I do not see any antagonism between them; I do not recognize any.

1849. It may be for the advantage of the public that a peculiar monopoly should be given to an inventor; but that is not quite the question now under consideration. When you propose to give additional facilities for obtaining patents, all inventors who look to getting with greater facility those patents, must surely be considered to a great extent as an interested class?

Not more interested than any other class which lives by its labour, and which seeks to get the reward of its labour from the public approval of its labour. The greater the facility for obtaining patents, the greater is the amount of invention offered to the public. The benefit is reciprocal.

1850. Would not a tribunal composed exclusively of landowners about to legislate upon additional privileges being granted to landowners, be considered an interested class?

Not if the public were free to deal with land as they are free to deal with invention, making use of it or not as the public itself thought fit. It seems to me, that an inventor may be assumed to offer that which the public want. If he offers what they do not want, the public do not heed him; if he offers what they want, and is left free to make his own bargains with the public, his interest and the public interest seem to me to be quite identical.

1851. Do not the patent laws go beyond the case which you have stated. An inventor may deal as he thinks proper with the public, and the public with him, but the principle of the patent law is to go beyond that, and to prevent certain other members of the public from using certain powers which they might otherwise

wise exercise for their benefit, and to the supposed detriment of the inventor. Upon such a question as that, is not the inventor fairly and reasonably to be considered as an interested party, and his judgment, therefore, to be taken with the allowance due to such a consideration?

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The public cannot be said to be prevented from using powers they do not possess, unless the inventor gives them. I look upon the bargain which the present patent law affects to realize between the two parties as one which is mutually beneficial. The inventor is not obliged to declare his discoveries; he is not obliged to declare his inventions; he may work them in secret. The public wish to have his inventions. They desire not only to have the result of his invention, but they desire to know how the invention has been produced, in order that they may record the knowledge for future use. This knowledge is a right with him which no legislation whatever can touch; it rests absolutely with him whether he will tell the public this or not. The public say to him, "Tell us your secret, and we will assure you against robbery." That seems to me to be the real view of the question. The legislature steps in, and says, there being these two facts, the right of the inventor to keep his own discovery to himself, which is impregnable, and the wish of the public to get at and use that discovery, and to know all about it; you have to make the two desires mutual, and accordingly you make a kind of bargain with inventors.

1852. What you are now stating, refers rather to the policy of the patent laws than the point of the previous question, which is, whether an inventor applying for a patent, does not conceive himself to have an interest in the exclusive privilege which he would derive from the patent, that interest operating as a bias upon his judgment in any opinion he may be called on to give upon the subject?

He has the exclusive privilege already if he holds his tongue, and no doubt is biassed so far as he wishes to retain it. I have a very strong interest in retaining my pocket-handkerchief and in preventing robbery.

1853. Putting it in the way in which you put it just now, and assuming that it is for the advantage of the public that a bargain should be made between the public and the inventor, in order to induce the inventor to invent and discover his invention, surely, in drawing up the terms of this bargain, the inventor is, to a certain degree, an interested person, seeing that in legislating as to the facilities which are to be given to inventors for obtaining a patent, you are actually drawing up the bargain which is to take place between the public and the inventor?

They are not more interested than any person who does not wish to be robbed, according to my view.

1854. In the question between the possessor of the pocket-handkerchief and the pickpocket, would not the possessor of the pocket-handkerchief be an interested party?

Undoubtedly, against the thief.

1855. Do I understand you correctly, that you consider the patent laws a price paid by the public to inventors for disclosing their inventions?

Yes.

1856. Are not the public then, as distinguished from inventors, the proper persons to determine what price they will offer on their side, it resting only with inventors to determine whether they will accept that price or not?

The public offer no price; they give absolutely nothing but a permission or title to the inventor to defend his own right. I think in all bargains you do not put the whole of the power on one side; undoubtedly you may do so, and you may get no result. If the public say that no person shall take out a patent without paying a very heavy price for doing that which the public wants, of course the inventor may determine for himself whether he will give his invention for that price, or whether he will keep it to himself; but to say that he and the public are not to make the bargain mutually, but that the public is to make the bargain altogether upon its own side, as it seems to me, would not lead to practical results. Inventors have a very strong repugnance to paying, say 300*l.*, for the chance of obtaining the right, because you do not really grant the right absolutely when the payment of 300*l.* is made. In the present demands for a modification of the system, you have an exemplification of the point which your Lordship adduced, of the necessity of the public and the inventor being concurrent parties to the

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bargain, rather than that the public should be allowed to determine it upon one side only.

1857. You have departed now from the exact question before the Committee, and are considering the question as to whether a suggestion made by an inventor must not be looked on as a suggestion on the part of one who wishes to drive a good bargain with the public?

I put my answer upon the broad ground of the interests being the same, both on the part of the public and the inventor.

1858. What do you conceive to be the main benefit arising to the public from granting patent rights?

I think there are two benefits; one, the broad benefit of recognizing honesty by discouraging piracy; that is a very broad principle. The other is, that the public obtains a knowledge, which would in all probability be hidden from it, unless there were a motive for declaring it.

1859. Will you explain what you mean by the first benefit, which you term the broad principle of recognizing honesty?

I think, that to declare that any labour bestowed in the direction of an object which the public wants and values, is to be treated differently from other labour, because it happens to be inventive labour; in other words, that the fruits of inventive labour are not worthy of the same protection as you apply to the fruits of every other description of labour; is against the principles both of honesty and good policy. It appears to me, that if a labourer can go upon the high road and earn a day's wages, and have full power over that day's wages, some part of the public certainly being very willing and desirous to get at those wages, so the inventor should be entitled to the fruits of his labour, which is his discovery. To say that the labourer, beneficially working for the public, is not to enjoy the fruits of his exertions, seems to me contrary to the fundamental principles upon which civilization goes on.

1860. In that case the wages are the reward of the labour, and not the labour which is protected?

They are the results of the man's labour, and so with inventors, the thing produced is the result of inventive labour. Inventions are not things which rise up like mushrooms. Inventions may turn out to be useless, but they are the consequences of applied labour.

1861. Is not it a common practice in all the operations of life to recommend clumsy and ignorant labourers to go and observe, and learn by observation of the more skilful operations of a better labourer?

Certainly.

1862. How do you distinguish between that principle and the principle of sending a man to learn how to make a machine better, by observing how it is better made by other persons?

I should give the most perfect freedom to observation and publication of every thing connected with the patent.

1863. Is not the patent-right principle that of prohibiting persons from applying their observation to the improvement of their own manufactures and machinery?

Not at all.

1864. Is not it the very purpose of patent rights to prevent a person having observed the improved machine of another man from making his own machine according to that improvement, which he has seen in the possession of the other person?

The object is to deprive him of the power of doing the same thing in precisely the same way, without labour and skill on his part, but to stimulate him to do it in a better way, with the experience before him, for his own and the public advantage.

1865. Is not the effect and the intention of patent rights to prevent parties, by observing the machinery of other persons, learning how to make their own machinery as good as that which they have observed in the hands of other people?

I think

I think not ; on the contrary, I think the tendency of patent rights is rather to encourage parties to carry on the experience of others to a further point.

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1866. Is not it the intention and the direct effect of the patent laws to prevent any person, except the patentee, from making or using the particular machine or invention so patented ?

The precise machine or mode.

1867. How do you distinguish between the principle, which you acknowledge to be a right one, of telling a clumsy operative to learn, by observing the superior skilfulness of better work-people, and to apply the information and suggestions so obtained to his own advancement, and the principle of observing the improvements in the machinery of other people, and applying those improvements directly to the improvement of your own machinery, the improvement so applied being the identical improvement which you have observed in another man's work ?

I think there is a very obvious distinction between letting the public look at a picture and stealing it, or all the painter's own ideas, and repeating them.

1868. Is not there a distinction between stealing a picture and learning, from Raphael for instance, a better combination of colours, or a better mode of drawing a figure ?

Certainly ; but to copy Raphael's picture without his leave and the proprietor's leave, I should call a theft, and not beneficial to the public.

1869. What do you consider to be the principal defects of the present system ?

I think the great defect is making the inventor pay a very heavy fee for no service returned to him. I think the delay in the procedure is detrimental. There are a great number of formalities to be gone through, which are without meaning, and I think there is great uncertainty in the present state of the law, all of which, I think, are great public disadvantages.

1870. How far do you think the Bills which are referred to this Committee correct any of those defects ?

The Bills would effect immense improvements, but I think that a careful scrutiny of them shows that they might be carried a great deal further. If an attempt were made to put the patent law upon a right footing, it would be as well to go to better principles of jurisprudence than those upon which the Bills themselves are based ; I think that if it were impossible to get a better thing, the present Bills would produce great benefit ; but I think that it is possible to get a better thing, and I think the present Bills will not be satisfactory to the parties most interested in the whole question. I would not be understood as depreciating in any way the present Bills, because it is quite obvious that in all points they are a great improvement upon the present system.

1871. Who do you understand to be the parties principally interested in the question ?

Inventors and manufacturers throughout the country.

1872. Do you class them together ?

Yes.

1873. Do you believe the manufacturers to be a class, generally speaking, who are inventors ?

I do not think they are inventors themselves ; but they are people whose interests are most directly connected with the progress of invention.

1874. You speak of putting the patent laws upon a right footing ; will you state shortly your own idea of the footing upon which they should be placed ?

On the one hand you have to induce the inventor to declare his invention, and on the other hand you have to protect the public from surrendering that which might be considered more or less common property ; I think that the proper principle is to recognize any claim of an inventor, leaving upon him the onus, if necessary, of proving that the claim is a right ; whether an invention be good or bad, the public will determine for itself ; whether it be new, or whether it affect any other right at all, the parties interested, I think, will themselves determine best ; therefore a simple registration of the right claimed, leaving the right to be determined by its own merits hereafter, is the proper principle of dealing with the subject, in my opinion.

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1875. Does not that principle obviously involve two very serious difficulties ; one, the very wide and open field for litigation which it lays before inventors and the public, and the other, the danger of obstructing, by the multiplication of patent rights upon subjects themselves not really deserving of them, the inventions of more meritorious inventors ?

First, as to the danger of litigation, I do not believe that anybody is so fond of litigation as to go into it for its own sake ; where you have litigation, you have wrongs ; the easiest way of getting rid of wrongs is to have litigation, not to be afraid of it. The increased amount of litigation you have is simply proportionate to the amount of wrongs to be redressed, and I think to be afraid of litigation at all is beside the question. In respect of the obstruction of invention, I believe that invention being science, the more science is left free to develop itself, the more science you will have ; I think the legislature is not justified in declaring, from an apprehension of evils, that science is not to have its own natural freedom, but to be checked by a tax ; we should never have had any of the most remarkable results which are now before the world, electric telegraphs, steam-boats or railways, if legislation had altogether attempted to limit the progress of science, as, in my belief it does, by putting difficulties in the way of inventors.

1876. It has been stated in evidence before this Committee, that many inventors proposing to apply their inventions practically, have found themselves obstructed by the existence of numerous patents ; can you call such state of things a free state of science ?

I have heard that generally stated, but I have never seen any precise evidence of the fact, and I should be rather disposed to deny it.

1877. Your principle is, that what a man has invented by the labour of his mind, he has a right to the exclusive use of for a certain period ; supposing that a person by great study and great labour had arrived at a very useful and powerful formula, applicable to astronomy, or to any of the mathematical calculations connected with science, should you hold that he had a right to the exclusive employment of that formula, and desire that no one else should be allowed to apply it in his scientific pursuits ?

He has already an exclusive and absolute monopoly in the formula, if he does not choose to declare it ; it is beyond any power of legislation to take it away from him. You tempt him to declare it for your own advantage, by telling him that you will give him a limited monopoly in it.

1878. I am supposing that he possesses it, and that in order to make use of it he must divulge it ; in order to accomplish his own purposes he must divulge his formula ; having divulged that formula in carrying on his own pursuits, is he to retain the exclusive right to apply it in future ?

I think he ought to obtain not a perpetual right, but a limited right ; I think it is for the advantage of the public that he should obtain a limited right, because I think if he did not obtain such a right he would not tell his secret ; and though you may suppose a particular case where the inventor is bound by the necessities of the case to show his process, there are innumerable cases where the thing can be done without the process being known. I might mention a great many ; for example, there is Mr. Cheverton's reduction in ivory ; Mr. Cheverton for years past has been in the habit of reducing the finest works of antiquity, as well as modern works of sculpture, into small statuettes in ivory, which are well known ; he has gone on working for years in doing that, but he does not like to encounter the expense of the patent law, and the uncertainties of it ; and therefore he keeps the whole process to himself. If we may regard the application of some three or four hundred people which have been made between the last few weeks for the rights of registration, with a view to exhibiting their inventions, it is evident there are many persons who have already got plans and processes which they keep to themselves, because they are either too poor to take out a patent, or in this particular case are unable to get admission to the Exhibition without a registration.

1879. My question applied not to mechanical improvements, which are purely the results of mental labour. Should you say that the principal of gravitation, for instance, having been once announced, should be exclusively confined in all scientific pursuits to the discoverer, and that nobody should avail himself of that principle without a license from the discoverer ?

I do.

I do not think that principles should be the subjects of patents; but I think that if any person discovers a mode of exemplifying gravitation, he is entitled to a patent for that particular mode; not to the exclusion of any other mode, or any better one; I have seen it laid down in some of the law books, that a principle is covered by a patent, but it is covered by the precise statement of a mode; my own opinion is, that abstract principles are not patentable things at all.

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1880. I think I gather from the general tone of your evidence, that you would mainly rest the defence of the patent laws upon the ground of their being an inducement which the public holds out to inventors to make known their discoveries?

Mainly, certainly; I have endeavoured to show that the inventor has got a right, which you cannot get from him, without holding out an inducement to him to declare it, and that it is greatly for the public good that he should declare it.

1881. With respect to a mechanical contrivance, or with respect to a formula which an individual had discovered, he is liable, if he keeps it to himself, to any other of the public arriving at that mechanical contrivance, or at the formula; whereas, if he obtains a patent for it, however many other persons may arrive at the same discovery, they are precluded during the period of his protection from using it, except upon the terms which he chooses to impose?

Yes, from using it in precisely the same way; but if you observe the progress of successful invention, you will see that an invention is no sooner successful, and the public become greedy after it, than the thing becomes repeated in other shapes, and competition arises; there is a case now in Birmingham. Not long ago, an inventor discovered a mode of preventing the point of a pin from damaging the person by whom it was used, by affixing a little India-rubber strap, after the pin was fixed in its place upon the top of it; that was found to be a great convenience to children in swaddling clothes. In a very short time, a large business was generated by this pin, and its elastic band; I heard that the manufacturer was employing 500 men per week in making those pins; but as soon as that demand on the part of the public had been created, somebody else found out an extremely simple mechanical mode of superseding the band, and still covering the point with a little cap of metal; that was sold more cheaply than the other; it was found I believe as effective, and the first invention for which the man had the patent, was superseded, partially at least, by the better thing.

1882. Does not the existence of a patent afford a stimulus in general not to the improvement of an invention which is already made, but to the discovery of some other method by which the patent may be infringed?

Certainly, I think so; but that again is not peculiar to patent rights; it is common to all rights; one right begets other rights; it is in the nature of civilization that it should do so.

1883. If there were no patent rights, the only object would be to make the invention as perfect as possible?

Yes, and keep it secret; the more valuable one invention is, the more likely you are to get still more valuable inventions by recognizing the importance of the first.

1884. Will you state what are the principal defects which you have remarked in the Bills referred to the Committee?

I will take Lord Brougham's Bill first. If I understand that Bill rightly, an inventor has first to petition the Patent Office; he is then referred to officers who are to report in some way upon the application; the report is then referred back to the Commissioners; the Commissioners are then to make a warrant for the Sign Manual, which is to be sent to the Lord Chancellor; and then the patentee may chance to get the petition admitted, and his patent signed; I would respectfully submit that all that process leads practically to no result, except trouble and fees; as to the report of the officers, they can make no reports which will have really any practical effect, unless the public want them; no tribunal can satisfy the public upon the worth of an invention, or upon its novelty; the public, if it is dissatisfied, is sure to question the judgment; in fact, the proposed is only another mode of doing what the Attorney-general is supposed to do at the present time; I may observe that Lord Brougham, by his Bill, gets rid of the Attorney-general, but puts the action which is now in the Attorney-general's

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office into other hands; the operation of that has been forcibly stated by Mr. Webster in his evidence on the Privy Seal Office; he describes how useless is that investigation before the Attorney-general; he says that officer never will decide legal question; he always sends the parties to law, and will never take upon himself the responsibility. A compulsory provisional investigation seems to me a defect in point of principle in Lord Brougham's Bill; and in the same way, I think it is a defect in principle in the Government Bill; in Lord Granville's Bill the Attorney-general remains instead of the Commissioners; but the evidence of the last 30 years before all Committees, from inventors, patent agents and patent lawyers, has all gone to show that the public have no faith in that kind of investigation; the public must determine those questions for themselves.

1885. You think that there should be no preliminary inquiry?

None, compulsory.

1886. You object to any preliminary investigation of any kind?

To any that is compulsory; it appears to me to be putting the parties to unnecessary expense and delay.

1887. The applicant, you think, should, as a matter of right, obtain his patent?

He has a right till it is shown to be no right. I do not admit that any party applying for a patent acquires any right, beyond the fact of registration, that he was the person who claimed it.

1888. You mean that he should, in the readiest manner practicable, have a right to obtain a patent, and then, that the effect of that patent should afterwards be whatever the law might determine it to be?

That is my view.

1889. You would avoid all preliminary investigation whatever?

Unless it is requested; I would make an exception in such cases.

1890. Requested by which party?

By either party.

1891. Either by the applicant or the opponent?

Yes; but that would not debar any person from questioning it in a court of law, if he pleased.

1892. In the case put by you, where there is a request made by the parties for a preliminary inquiry, what would be the effect of that preliminary inquiry?

The effect would be, that if it were made by a recognized officer, who held a scientific position, and had the public confidence reposed in him as an authority, his report would be an authoritative document upon its own merits. You get that now without public responsibility from the patent agent.

1893. The object of my question was to ascertain whether you propose to give any legal effect to the report consequent upon the inquiry to be made, at the request of either of the parties?

I should like to see it enacted, that the parties should be at liberty to get this preliminary report, if they pleased.

1894. According to your idea, what should be the effect of the preliminary report; should it be merely a moral effect, or should it be a legal effect?

It would have a moral effect in checking disputes subsequently.

1895. Should it prevent the granting of letters patent, in your view?

No, certainly not.

1896. In a case where this investigation was demanded by an opponent, and the result was a report that there was neither novelty nor utility in the invention of the applicant, would the result, according to your view, still be, that the applicant should receive his letters patent?

He should receive his registrations, subject to their being disputed hereafter and cancelled; I should also say, that if the applicant, after the report, choose to go on demanding a patent, and his opponent take him into a court of law, and get a verdict against him, he should bear the whole cost of the proceedings.

1897. To what tribunal would you refer that right of investigation, in the event of opposition?

I would

I would allow the parties, if they pleased, to go to the county courts in the first instance, and have a jury there.

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1898. Supposing there were a preliminary investigation which might be had on the application of either party, by what officer would you require that preliminary investigation to be conducted?

I would have it conducted by an officer technically versed in the questions, to be submitted to him. A chemical authority on a chemical question, a mechanical authority on a mechanical question, and so on; but he should be a public officer.

1899. And not a law officer of the Crown, with the assistance of scientific advisers?

I think, that if the view of a registration of inventive rights were entertained, there must of necessity be a Registrar, who would have also, somewhat the functions of a judge. He would determine all minor disputes by the consent of the parties in the early stages of those disputes. Parties being opposed to each other upon a right, would agree, in many cases, to have the question referred to an expert. The expert would make his report, and the report would stand *quantum valeat*; if the parties were not satisfied with it, as I believe in nine cases out of ten they would be, then they might go to the county courts, and they might go to a superior court at Westminster after that, if they pleased.

1900. If this preliminary investigation is to have no more force than you seem inclined to attribute to it, would it be worth while to keep up so expensive a machinery as could be necessary for the purpose of making it?

I think the preliminary investigation would have advantages in preventing future litigation. Parties who are disputing are very happy to get an impartial and recognized officer to arbitrate between them at a cheap rate. I think you would frequently get questions settled very shortly; in fact now, without any such officer, by the mere fact of having enabled an inventor to publish what he claims, the force of common sense and public opinion are brought to bear upon the claim, and if it is worth nothing it is exploded immediately. The effect of the provisional registration recently granted, has been to clear away many claims for idle inventions. People brood over their thoughts, and fancy they are begetting wonders. They bring their thoughts out, and everybody interested sees that the thing has been done years ago. The mere fact of having the claim known, gets rid of a great deal of dispute and litigation.

1901. How do you propose that the expense of the preliminary investigation should be defrayed?

I would make the parties pay for it; there should be a fee paid to the officer of course.

1902. By the party applying for the patents, or by both parties?

By the party applying for the report, I should say. If they both agree, they may divide the expense between them.

1903. Still, if, under all circumstances, the applicant is to be able to take out his letters patent, the Registrar would not have any judicial duties to perform?

The Registrar would have a number of functions of a clerical character. He must see that the document is registered rightly. He would have a number of questions to decide upon those of a scientific character; he would get the advice of those experts.

1904. What would be the object of any application to him; you give him nothing to decide. In what case would he have to give any judgment?

Supposing that mistakes arose in recording the patent, or in the registration which did not involve a scientific dispute at all, there would be a reference to him.

1905. Those would be clerical errors?

He must exercise a judgment upon them, and be responsible for them.

1906. He would not have to exercise a judgment upon any point, except clerical errors?

They are sometimes of very great importance. I do not depreciate them when I call them clerical.

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1907. Still

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1907. Still they would be purely clerical, and would not furnish the Registrar with any case upon which it would require much knowledge to enable him to pronounce a judgment?

The Registrar would do everything except give a scientific judgment. In fact, he would do a great many things which the Attorney-general is now supposed to do, but which in practice, I believe, are not done. If any question arose, for example, as to the priority of a claim, I would give the Registrar the power of determining that question upon his own authority at the beginning, the parties having the means of appeal hereafter.

1908. Would not the priority appear by reference to the dates of the respective applications?

In one sense it would be so. Supposing the case of two parties applying almost simultaneously for the same thing, as is not at all unlikely, he would decide between them. It is asserted that that is going on now under the present system; one party gets cognizance of what another is doing, and frauds are perpetrated. A workman may be making his experiments, and another workman gets hold of his secret.

1909. In all those cases, as the applicant is to get his letters patent, what would be the use of the decision of the Registrar?

Immediate and ready action in case of dispute. The Registrar being a public functionary, and having no bias, when the parties went into court, after he had given his decision, they would go with a prejudiced case; the Registrar would have reported and awarded; the scientific referees would also have awarded upon the facts coming within the scope of their decision, and those decisions going before any jury, I believe, in the great majority of cases, would be conclusive.

1910. When you apply to a court upon an award, it is usually to enforce that award; but you start by declaring that in this case the award is to have no practical result?

I think it would have a great moral as well as practical result. It is not to have a conclusive result.

1911. It would be in the nature of a certificate, would it not?

Yes. I think you would not say that the judgment of a lower court has no practical result, because the party can finally come to Parliament upon appeal.

1912. According to your plan, the award in the first case is not to bar the party from possessing himself of the letters patent, therefore it would be fruitless of any result?

The result would be rather a moral and not a legal one.

1913. Would not there be this disadvantage in the plan you propose, that a man who is not the true inventor would be enabled by this cheap mode of registering anything which he chose to call an invention, to place himself in a very favourable position for frightening by threats of litigation all others, whether inventors or manufacturers, into a compromise with him?

I do not believe that such a result would follow; and, so far as one may judge from the experience of the Registration of Designs Act, the effect has been quite the contrary. It was predicted that the courts would be overwhelmed with litigation of all kinds, arising out of the registration both of designs of ornament and designs of utility; but practically the effect has been, that there has been an extremely small amount of litigation, so little, that the Bills are exceedingly unpopular among lawyers.

1914. Will you proceed with your statement of the defects which you see in the present Bill?

I think experience has shown during the last 25 years that any Boards composed of a great number of members for managing anything is a very imperfect organization. In all cases where there are a great number set to do the work, you find periodically there is some Parliamentary inquiry as to the manner in which it has been done. One recent case was the Ecclesiastical Commission; there you had the bench of Bishops undertaking to manage ecclesiastical property; the result was, that the whole thing went into confusion; numbers do not form a good executive. In his Bill Lord Brougham proposes to appoint eight persons, all of whom are charged with vastly more important functions than that of looking
to

to the granting of patents. The same error pervades the Government Bill ; in that there are not eight, but eleven, with an unlimited number besides. In the respect that some others are to be specially appointed, the Government Bill would be, perhaps, the better of the two, because the natural result would be, that the special Commissioners would be probably persons not charged with high official duties like the Lord Chancellor and the Attorney-general, and they would attend to the business ; but then the result would be, that the whole responsibility would be divided ; and if the parties who usually attended to the business went wrong, they would be screened by the greater number, particularly if they were persons in eminent positions. In both Bills I find that you cannot understand anything clearly about the fees ; the question seems to be evaded as to who is to receive the fees, and what is to be done with them. In the Government Bill it is not clear whether there will not be fees still payable to the Attorney-general ; the schedule of fees does not make it clear ; it does not say who the parties actually are who are to receive the fees, and what duties they are actually to perform. If you begin by touching the old modes of action, and alter the duties, and do not precisely define what you mean, errors ensued ; I think the Bills will be found quite impracticable as respects the working of them. There is one feature in Lord Brougham's Bill which the Government Bill does not possess, which appears likely to be valuable ; it is respecting the printing of specifications.

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1915. Do you think indexes to the specifications would be of great use ?

Not nearly so valuable as printing the specifications themselves. If no amended legislation be applied to the patent laws at all, the mere fact of printing all specifications would in itself completely alter the whole course of proceeding. With respect to the point of expense of production, I believe nobody need be alarmed at it if it be done as I think it might ; for example, if each specification of a patent were printed separately, and were sold separately, and they were then made into volumes of specialties, volumes containing the specifications about steam-engines, or about cotton-spinning, and so on, I am sure there would be a sufficient public demand for them from the classes interested to pay the whole cost of printing. My own belief is, that one of the greatest services that could be rendered to the public would be to print the specifications, which the public would consult before wasting time on what they imagined to be a discovery. The first thing obviously which a person would do who fancied he had an invention would be to consult the volume containing a list of analogous or similar inventions, and he would thus be saved an immense deal of anxiety and a great amount of expense.

1916. It would serve the purpose of an index if you published the specifications relating to one subject all together ?

It would so. The disadvantage of an index only is that patentees cannot tell how much is comprehended under a patent ; there is now the case of a discovery by Mr. Mercer, his process being to shrink cotton cloth by dipping it in caustic soda ; it has already realised great results in enabling coarse fabrics to be made into finer fabrics at a cheap rate ; it has also great results in intensifying colours upon woven fabrics. M. Claussen, I believe, has some expression in his patent which seems to cover Mr. Mercer's patent, but it is so recondite that the parties can scarcely agree whether it does so or not. Now, a mere index in that case would just evade the precise point of utility ; therefore, though an index is a great deal better than nothing, it is still very far from being the best thing.

1917. An index would be a great advantage if united with a publication of all specifications ?

Yes ; it would lead to a saving of time.

1918. Would not it also be an advantage, as indicating the specifications which it might be worth an inventor's while to examine ?

Yes, certainly ; there would be this additional advantage, besides those of the preventing delay and expense, that the most valuable history of invention, as a mere literary work, would be afforded by the collection of those specifications.

1919. Therefore, you think that all specifications, both past and present, should be printed and sold at prime cost by an authorized party ?

Yes ; not future specifications only, but all past specifications, from the time that specifications were first required. There is one important point in Lord

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Brougham's Bill, which is, that it would make letters patent applicable to the colonies; that appears to me wrong in principle, on the broad ground that the colonies can do their own legislation much better than we can; and wrong also as enabling frauds to be perpetrated.

1920. Then you approve of the provision in the Government Bill for excluding the colonies?

Yes.

1921. Do you think that the importer of a foreign invention, which has been already used and published in a foreign country, has the same right to protection for that invention as the original inventor?

No; not being the inventor or assignee within a limited period, I should say certainly not. But I think that a foreign inventor who brings his invention to this country within a limited period, has some kind of claim deserving of recognition. I think that a person who goes abroad, and merely sees something going on there, which is the subject of a foreign patent, should have no right to get a monopoly in this country. He is not a person who makes any discovery; some international laws on this subject seem to be desirable.

1922. Is not it possible that some bounty must be held out to induce persons to bring foreign inventions into operation in this country?

I think not more in the case of a patent than any other case; I think bounties are mischievous in principle.

1923. Is not this case liable to occur, and not unfrequently, namely, that an invention is in practical operation in a foreign country, but that there are so many difficulties, and doubts and prejudices to be overcome, so much capital to be applied to it, and so much uncertainty attending the result, that that foreign invention would remain in many cases without being brought to this country, unless there were some artificial encouragement given in the first instance to induce persons to run the first risk?

I do not believe it would; I think the facilities of inter-communication and the instincts of mankind always to have that which they really want, are quite sufficient to induce the importation of everything which is valuable.

1924. Would not that argument apply equally to giving encouragement to inventions in this country?

No, I think not.

1925. Will you point out the distinction?

In one case the inventor keeps his discovery absolutely to himself, unless you tempt him by making a bargain with him to reveal it to you; an invention abroad is known to everybody who chooses to go abroad. There is no possible means of keeping that secret absolutely, and you need not provide for such a case of secrecy as that.

1926. There is a provision in Bill (No. 2), for allowing inventors, upon depositing a full description, to have a provisional registration for six months at a small cost?

I think that is the most valuable feature of the Bill. I believe that would be found to be most advantageous. It is not made clear in the Bill, whether a simple payment of 2*l.* with the provisional specification, is to precede the petition, or whether it is to accompany the petition, or whether it absolutely involves a reference to the Attorney-general, or whether it is to stand as a registered claim upon its own merits, the 2*l.* having been paid. I do not think that is rendered quite clear as the Bill stands; if it be meant as an actual provisional specification, which anybody may take to an office and there pay 2*l.*, and get a right against all the world for so much as he is entitled to, I think it is a beneficial provision. If it involves many of the other stages, I think its operation will be rendered comparatively less useful. I observe that an inventor may repeat his provisional protection for 20*l.*; I do not think anybody would do that. It would be cheaper for him, upon the face of the schedule, at once to take out his patent, and pay the whole sum. If it be intended to permit parties to carry on their investigation for six months longer, the 20*l.* fee is so high as to make it inoperative. It would be cheaper for a person to pay his 2*l.*, and then to pay the subsequent fees, making all together 19*l.*, and then if he did not find that

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his patent comprehended all he wished, he would begin *de novo*, rather than pay the 20*l*.

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1927. Would not there be a great difference in respect of the expense of professional assistance?

There would be a difference in that respect; it seems to me, that one defect of both these Bills is, that they do not make the subject of fees as clear as I think, in any new legislation, it is desirable it should be made.

1928. Do you think periodical payments advisable?

Very important indeed.

1929. Do you think they should recur at stated periods, such as are mentioned in the Bill, or annually?

On the whole, I think it is better that it should be as it is stated in the Bill, than annually.

1930. What do you conceive to be the advantage of a system of periodical payments?

I think they will get rid of rights which are useless and not used; you will get them swept out of the statute book, and you will have a clear field.

1931. Did not you state in a former part of your evidence, that the granting of multiplied patent rights for useless inventions did not tend injuriously to obstruct the field of invention?

Multiplied patent rights in use, not rights unused. It will be a convenience for parties to be able to go to an easy index, and see that such and such patents are already in operation. I think you would sweep away a great deal of useless rights by repeated payments.

1932. Is that the only advantage which you consider will attach to clearing the field of useless inventions?

I think that that is the chief advantage, the making the procedure very simple, and the knowledge easy to be arrived at.

1933. You do not think that the existence of patent rights granted for useless inventions creates embarrassment to future inventors?

I do not believe in that prediction to any great extent. If the Committee will allow me, I would put in evidence parts of the first Report of the Committee of the Society of Arts, in which several of the points on which I have been examined are treated more fully than in my evidence.—(See Sections 32 to 42.) *Vide Appendix C.*

The Witness is directed to withdraw.

MATTHEW DAVENPORT HILL, Esquire, is called in, and examined
as follows:

M. D. Hill, Esq.

1934. YOU are a barrister?

Yes, but not in practice at the present time.

1935. Have you ever paid attention to the law of patents?

Very great attention; I have been a good deal engaged in that part of the practice of the law.

1936. Do you approve generally of the working of the present system?

No, I think it works very ill.

1937. Will you be good enough to state what you think are the principal defects in the present system?

They are many, and various. One great defect appears to me to be, that the privilege does not attach immediately upon the application for a patent. There is a very dangerous interval for a patentee between the application for the grant and the sealing of the grant, during which he is peculiarly open to be robbed of his invention.

1938. Would you meet that by making it compulsory that the protection should date from the day of the petition, or would you leave it to the discretion of the Attorney-general, or make it dependent upon the deposit of a full specification?

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I should be very much inclined to leave it discretionary with the Attorney-general, if he should be ultimately the officer in whom that discretion is to be lodged.

1939. Do you think that dating the patent from the day of presenting the petition would be the means of removing the objection and the danger which you have alluded to?

I think it would be one of the most important means; I am not quite sure, till the experiment has been tried, that it would be sufficient of itself.

1940. Does the danger, which you say the patentee or the inventor is exposed to during that time, proceed from the risk of having his invention pirated?

From having his invention pirated, and from having it pirated in the worst form, by those who afterwards come to claim that same invention as their own.

1941. You imagine, that after the petition is presented, his discovery is liable to become known?

Peculiarly liable; a very slight hint is enough to put a rival inventor upon the right scent; a very slight hint, indeed.

1942. Are there any other evils which you imagine an inventor is exposed to during that period?

I think he is exposed to this very great inconvenience, that he cannot bring his invention, considering it in the light of a property, to market; he is very much impeded in his communications with the capitalist. Now, from my experience in cases of applications to the Privy Council for extensions of patents, I have frequently seen, while I was in practice, that the capitalist is, for the successful working of an invention, almost as important as the inventor, and that it is better for the inventor, and better for the public, in 99 cases out of 100, that he should at a very early period go to the capitalist and sell him his invention, or join with him in partnership. The case of Boulton & Watt will be recollected as a happy instance of the benefit of partnership between the inventor and the capitalist. But, except under peculiar circumstances, I think a sale would be preferable. On a sale or partnership being effected, all the difficulties and dangers of the trade are taken practically and substantially by the capitalist; the inventor is seldom a man who, by the nature of his talents and his pursuits, is calculated for the cares and risks of commerce, and, therefore, it has appeared to me, from many instances which have been brought under my notice before the Privy Council, that some provision would be desirable which would enable an inventor safely to disclose his invention to a capitalist, to transfer the property in it, and return at once, with his remuneration in his pocket, to his laboratory or to his workshop to prosecute some other invention.

1943. You think an inventor would be able advantageously to make his bargain with the capitalist, if his invention were protected from the date of his first application for a patent?

Yes, the importance to the inventor of keeping his invention undisclosed being very much diminished, and, in the majority of instances, quite at an end, he would negotiate freely; while, on the other hand, the capitalist would buy a secured property, instead of one liable to be destroyed by fraudulent or indiscreet publication.

1944. Do you think that an invention is in a sufficiently advanced state to be properly saleable to the capitalist before it is in a sufficiently advanced state to be capable of specification?

I should answer that question in this way: a specification, as your Lordship knows, is composed of two very distinct parts; a description of the nature of the invention, and a description of the manner in which it is to be carried into effect; those are the very terms of that part of the grant which provides for the specification. Now I cannot but imagine that the moment an invention is made, or, at all events, the moment it is in such a state as to justify the inventor in making an application for a patent, it is in that state in which he can describe the nature of his invention; but inasmuch as many experiments and much practice are required to enable him to go all through the minute details which are required to enable the machine, supposing it to be a machine, to be correctly made, I think that part of the specification which regards the mode of carrying the invention into effect, he may not be able to give at the time he applies for his patent, but I do not think

think that that part of the specification is necessary to enable him fairly to enter into negotiations with the capitalist, or for the capitalist to be acquainted with previously to his becoming the purchaser, because we know that all those little difficulties of detail are easily got over when the principle is clearly developed.

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1945. Does the specification, so far as it regards the manner of carrying the invention into effect, require the setting forth of all the process, in detail, in the manner you now contemplate?

Certainly; for the rule of law is, that the specification must be such as to enable a workman commonly and fairly conversant with the trade in question to make the machine; it is not enough that the specification would enable a man of science, a man of education, a man of great talent, to find out how the machine is to be made; the specification, to be good in law, must be such as to give the requisite information to a competent working man; therefore such details must be set forth. The specification has often been subjected to this test by the courts. Is any inventive power required in the workman to make the machine; if so, the specification is bad.

1946. You think, therefore, generally, that inventions may be in a state sufficiently advanced to be fit articles for the market to the capitalists before they are in a state sufficiently advanced to be effectually specified?

To be fully specified, certainly, before they are in a state to admit of the second part of the specification being framed.

1947. It is upon that view of the subject you ground your opinion that there ought to be a protection granted between the period of first registering the invention and finally specifying it?

That is one of the grounds.

1948. Do you think there ought to be a preliminary examination before granting letters patent as there is at present?

That is a very difficult question, and one which I cannot say that I have a very determinate opinion upon; at the same time, I am very much inclined to believe that such a preliminary examination might be so conducted as to be very useful to the public, and sometimes very useful to the inventor, by showing him that he really is coming to patent an invention which is old. It might be supposed that such a case is only one of remote possibility, but in fact it occurs every day.

1949. Do you think that a tribunal, satisfactory for the purpose, could be established with a view of examining into the validity of inventions offering themselves for patents?

As I said before, I can hardly form a decided opinion, but I think it sufficiently *sperate* to justify the attempt, and sufficiently important, if successful, to justify some exertion for the purpose of creating such a tribunal.

1950. At present, in opposed cases, there is a preliminary examination, is not there?

There is.

1951. Has the working of that preliminary examination generally been to prevent litigation afterwards with regard to the patents passed in those cases?

I am hardly able to answer that question; I should think patent agents would be more likely to give your Lordships trustworthy information than I should be.

1952. In cases which have come before the Privy Council, has it been often stated that there had been a preliminary investigation?

No; it would be a matter quite immaterial to the questions before the Privy Council, and therefore nothing would be said of it. It would not be likely to be much known to the bar, except to those who are very exclusively engaged in patent cases.

1953. Have you any opportunity of knowing whether satisfaction is generally given by the result of the investigation before the Attorney-general?

I think the tribunal is very useful as far as it has gone, but it labours under many defects; as at present constituted, there is no good means of informing the public that an application for a patent for a particular invention has been made, and therefore it is only by what is called the caveat system, upon which probably your Lordships have had evidence, and which you have probably seen to be very

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imperfect in the way of notice to the public, that the public receives any notice at all.

1954. The caveat secures notice to the parties interested who have entered the caveat?

Yes; but the danger to which I have adverted of their secret oozing out, prevents inventors from choosing a title which is significant. On the contrary, they aim at choosing a title which shall give the least possible quantity of information, and therefore it is very difficult for the person even who has lodged the caveat to know whether it is worth his while in any particular case to appear.

1955. The caveat may cover a whole class of cases?

Yes.

1956. There are other objections to the caveat system besides the imperfection of the notice which is given by it to opposing parties, are there not?

I think so.

1957. What are those other objections?

With great respect to all Attorney-generals and all Solicitor-generals who have been or are, or may be, I do not think those officers quite the right men for such an inquiry. I have, myself, attended an Attorney-general in a case in which (in court) at that time he was counsel, and counsel against me. I cannot say that I think that a happy state of things. In the particular instance, I am certain no injustice was done, and I am equally certain that no injustice has ever been intended, but still it is not satisfactory.

1958. Is not that objection attached generally to the practice, wherever it occurs, of allowing any person who is an advocate by profession at the same time to hold a judicial situation?

I think it is, if the judicial situation is in that sort of practice in which he is engaged at the bar, so that the two can come into conflict. I think it is one of a very serious nature; but I did not presume to apply it generally, but only to the subject under your Lordships' consideration.

1959. What would be the best tribunal, in your opinion, for the purpose of a preliminary examination into the expediency of granting a patent?

My difficulty arises, before the experiment has been tried, in not being quite sure how such a tribunal can be created. I think a preliminary examination very desirable, if a good tribunal can be created; but not being able to lay before your Lordships any plan for which I should like to be responsible, I express myself with diffidence. I should say, generally, that a tribunal which should be presided over by a lawyer, but composed of men of practical science to aid him, would be, in my opinion, the most favourable mode in which the experiment could be tried.

1960. By a lawyer, do you mean a person who has retired from the profession in order to give his whole time to that particular duty?

I do; I think if your Lordships will have the kindness to look at the rapidly increasing number of patents for inventions which are sought, it will appear that the time of such a man might be fully occupied.

1961. You think that it would be very difficult to constitute a tribunal to give satisfaction to all the parties concerned?

I feel it very difficult for myself to suggest such a tribunal; I dare say an abler man would be able to devise some plan which would at least be hopeful.

1962. In no case would you make the judgment of that tribunal final?

No, certainly not; I would give a power of appeal.

1963. Should the question upon which that tribunal should decide be only as to the novelty of the invention, or should it include the merits and importance of the invention?

That again is a very difficult question. To lodge a power in any tribunal which has to determine, on principles of discretion which cannot be defined, the rights of property, is a very serious anomaly, and a very great innovation upon the principles of jurisprudence, as they have always been exercised in this country.

1964. Should the tribunal be guided in its judgment by considerations of the novelty of the invention only, or should it also take into consideration the im-
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portance and value of the invention before recommending letters patent to be granted?

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That view appears to me to involve a question of degree. If there were some novelty or some slight utility and so forth, still, as I collect your Lordship's meaning, it would be discretionary in the tribunal to say whether there was sufficient novelty, sufficient utility, and sufficient amount of invention to justify the patent. If I correctly understand your Lordship's question, I rather shrink from a principle of jurisprudence which would be so new and so different from anything we have at present or ever have had in this country.

1965. You would not consider it expedient that this tribunal should be limited simply and entirely to the question of the novelty of the patent?

Certainly; at present the Crown is not bound to grant any man a patent under any circumstances, but the practice is to grant every person a patent who alleges novelty and utility. Then I propose in my own mind that this preliminary inquiry should examine into the truth of those allegations, and if they are true, notwithstanding the quantum of utility or the quantum of novelty of the invention may be very small, it should be their duty to report in favour of the patent.

1966. Still you would require proof of the utility?

Utility, your Lordship knows, is, as the practice now stands, always required to be alleged; I should require it to be proved.

1967. Many of the witnesses before the Committee have urged the propriety of giving to all inventors the power of patenting their inventions merely by registration, without any inquiry into the novelty or utility of those inventions; I wish to ascertain your opinion upon that branch of the question. Understanding from you that, if it were possible, it would be desirable to establish a Board which would give satisfaction to the public, for the purpose of granting patents for useful and novel inventions, in what manner would you propose to invite opposition before that tribunal?

By public advertisement, just as opposition is invited now before the Privy Council in the case of an application to extend or confirm a patent. I think it very desirable for the public, and, in truth, for inventors also, that whatever litigation there should be, should take place at the outset.

1968. Do you think it would be desirable that there should be a publication of all applications for patents as soon as they are made?

I do; and there arises another advantage from such a tribunal as your Lordships have been directing your attention to; it is quite clear that it may not be advisable that all the information which a patentee gives to the office should be published to the world, because, although the dating back the patent from the date of the application gives to the inventor many securities against an invasion of his patent, it cannot give him complete security; therefore, it may be very important that an impartial person should say what information should be contained in the advertisement, and what omitted, the object to be aimed at being to give only as much as would be sufficient fairly to guide the public to the questions which were to be brought before this tribunal, in order that the reader of the advertisement may know whether he was interested in opposing or not.

1969. Would not the drawing up such an advertisement be a very difficult matter in practice, and be likely to cause great dissatisfaction among inventors; would not they be likely to accuse the public officer of having let out, by some indiscreet expression, that portion of the invention which would enable persons who had arrived at almost the last stage to discover and apply the whole?

There is a conflict of interests between the patentee and the public, and in some cases to do justice between them may be very difficult; the decision of the officer might be open to that remark as the decision of a judge in other cases is open to criticism, and receives criticism from the losing party.

1970. His duty would be to decide what would be a sufficient advertisement to the public, which the patentee might think was giving them too much knowledge?

I think it is a difficulty which must be encountered; it is one among others which makes me speak with diffidence upon the whole subject; still I do not think it is an insuperable difficulty; I think it very likely to be found much more difficult in theory than in practice.

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1971. Would not the publication of a specific title give all the necessary information?

It would; but at present, in the first place the inventor settles his own title, and in the next place he settles it, or his counsel settles it for him, with a view to give the least possible information. He does not want opponents; on the contrary, he wishes to slip through without a contest; and that, it appears to me, renders it so important, if it can be devised without giving rise to unforeseen evils, that there should be some impartial person to decide, who would say, "We do not wish to betray your secret, but we wish to inform the world what it is you are come to gain an exclusive privilege for." Supposing Montgolfier had desired to take out a patent for his balloon, he might fairly have called it a mode of flying in the air; his means would not have been disclosed by that; and yet if any other person had devised any mode of rising into the air, and overcoming the attraction of gravitation, he would have been sufficiently instructed to oppose the patent.

1972. That was a very general and novel invention; but when a small improvement comes out in something very well known, such as an improvement in the steam-engine, would not that require a much more distinct specification to call the attention of the public to it?

Yes, no doubt; the danger to which your Lordship has called my attention, would increase in proportion to the minuteness of the invention.

1973. Still the object which should be kept in view in the specific title is, that it should describe simply the object, and not the mode of effecting it?

I dare say that would be the best means of arriving at my ultimate object, which is to give sufficient information to the public, so that the reader of the advertisement might know whether he was interested in opposing the application, and nothing more.

1974. That he should know what is to be done, but not how it is to be done? Yes.

1975. At present is not the only ground upon which an opposition can be maintained priority of discovery?

I am hardly sufficiently acquainted with the practice to say; I have very seldom attended the Attorney-general in patent cases.

1976. (To Mr. Webster.) Is not the only ground upon which an opposition can at present be maintained before the Attorney-general, priority of discovery?

I think practically it is so, because no Attorney-general, and nobody conversant with the history of invention, would, except in a very clear case, take upon himself to say there might not be some utility in a thing which a man said would be useful.

1977. (To Mr. Hill.) If that be the case, would not a complete publication of all the specifications of previous patents be a very easy means of ascertaining whether or not the invention was a novel one?

It would be a means, but specifications are very long and complicated: I am not certain that it would be an easy means.

1978. Every specification must be such as a common workman can understand, must not it?

It ought to be such.

1979. If that be the case, would not the publication of all the specifications with an index, by which the search might be facilitated, afford the means of determining the question of novelty, so far at least as patented inventions were concerned?

It would be a means, and a very important means, and I think specifications should be published; but I doubt whether, without an abstract, it would be an easy means; I think you would be required to wade through an immense quantity of matter.

1980. Might not the index to the preceding specifications be so formed as easily to lead a person to the portion which he wished to search?

I think they would, if they were so framed as to answer the purpose of an abstract.

1981. Would

1981. Would not the publication of specifications, therefore, enable the Attorney-general immediately to ascertain the point of novelty in respect to patented inventions?

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I think if the index were properly constructed, it would enable him to ascertain whether there had been any prior patent on the subject or not.

1982. That difficulty, as far as patented inventions goes, being removed, the only difficulty would be with regard to inventions not patented, but in use?

Yes, but that is ninety-nine hundredths of the difficulty in all probability.

1983. Supposing a party applied for a patent for a new mode of drying goods, without subjecting them to the injurious processes of squeezing or wringing, but effecting it by the application of centrifugal force, that, I apprehend, would be a good ground for an application for a patent?

I should think so.

1984. Supposing he went to the Attorney-general's office with a specification, and found that nothing of the same kind had been previously enrolled, so far as the patented inventions were concerned, his case would be good. But suppose he were opposed by a housemaid, who said that she had always wrung her mop in that way, would that be a ground of opposing the patent?

It was with regard to the vast amount of invention which is not patented, that I ventured to say that I thought his Lordship's suggestion got rid of a hundredth part of the difficulty, but left ninety-nine parts untouched.

1985. In your opinion, in case of any provision being made for insuring a better mode of opposition before the body to be constituted to inquire into inventions previously to granting patents, should any regulation be laid down in the Act of Parliament, or would not it be better to leave it to the Commission named in the Bill to draw up rules which their experience would suggest?

That is a question which has occupied very much of my attention; and I have arrived at this conclusion, that with regard to such rules, a very large power should be left to the Commissioners, as many of them must necessarily be framed on the tentative principle. The first time they will very likely fail, and then, if they could only be altered by statute, much delay must be submitted to. It would be much better to leave the power in the hands of the Commissioners, who would promptly remodel their rules according to their experience of their working.

1986. Did I understand you correctly, in a former part of your evidence, to state this opinion, that, notwithstanding patent rights had been granted to an inventor for any given invention, you still would not recommend the publication in all cases of the whole of that invention to the public, lest some person should use some of the suggestions contained in the full specification to facilitate his completion of inventions of the same nature as the patented invention, which might possibly interfere with its profit and success?

I did not mean to convey that idea; what I meant to convey was this, that if, *eo instanti*, upon the application being made, the deposit which is now required of a paper, describing the nature of the invention, is to be made public, then there are inventors, whom I am supposing to be engaged in effecting an invention of a similar kind, and I am not supposing that which is rare, but that which happens every day, who will have the facility of proof, not true proof, but false proof, and the facility, from the knowledge of that paper, of giving evidence, not true evidence, but coloured and false evidence, that they had a priority in their inventions; whereas, if a sufficient time were permitted to elapse, as that between the application and the grant, the danger would be very much lessened. And again, the effect of keeping the deposit unpublished would be this, that the Board or the Attorney-general, or whatever the tribunal might be, would say, "You oppose on the ground that you have an invention of your own, with which this patent would conflict." The opponent says "Yes." The Board then asks him to produce his description of his invention. In many cases a mere comparison of the two statements would dispose of the question.

1987. Do you think it important that the opponent should state his case in writing?

I think it is very important.

1988. Are you thoroughly convinced of the utility of patent rights?

Thoroughly.

(77. 10.)

M M 3

1989. You

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1989. You think doing away altogether with patents would be injurious to the country?

Yes, injurious in this way and to this extent; I think it very probable that almost every invention which is made with the stimulus of patents would be made without that stimulus eventually; but I think the patent law gives this advantage to the country, that it anticipates what I might call the natural period of an invention, so that you have for the benefit of the public an invention some 10 or 20, or perhaps in some cases 50 years before you would have it without the stimulus of a patent.

1990. It is a forcing process, in fact?

It is a forcing process.

1991. Do you see any disadvantages in the existence of a patent system, as far as the public are concerned?

It is not an account with all the items on one side; it is an account with some items on one side and some on the other, and the balance, in my opinion, is in favour of patents.

1992. It is the price you pay for the advantage you purchase?

It is the price you pay. You do pay a price, no doubt. No mode has hitherto been found which will ensure to the public a supply of articles which it may demand so cheaply and efficiently as by open competition. But competition is here shut out.

1993. An opinion has been given by some of the witnesses before this Committee, that the forcing process, as you have described it, of the patent laws is applicable and more advantageous to an early stage of society, and to a less developed period of invention, than it is to the advanced state at which we are now arrived. Do you agree in that opinion?

Not at all.

1994. It has also been suggested, that the patent laws prevent the rapid progress of improvement, discovery and invention, instead of promoting it?

I think they do, to some extent, in particular instances, as the laws are at present framed; but I think that means might be devised for mitigating, if not entirely removing that evil without touching the principle of exclusive privilege, and I propose to do it in this way. This practical inconvenience has arisen. An inventor takes out a patent for his invention; he presents it to the world in so imperfect a form, that the world does not adopt it. His patent becomes a dormant patent, of no use to him, nor to anyone else. By-and-by the same article is produced by a second inventor in a far more perfect state. The world would be very glad to adopt that second article, but its inventor is precluded from offering it to the public by the existence of the dormant patent. That appears to me to be a great evil. But I should propose with diffidence, and by no means with perfect confidence as to having struck out the best means of removing the evil, that in those cases you should pray in aid the law of compensation. You should give to the improver, the second patentee, and also to the first patentee, a right to go, the one to the other, and say how I desire to make for the public use this machine in its most perfect form, and I am willing to take a license from you, and if we cannot agree upon the terms, let us apply the Lands Clauses Act, and follow a similar process to that which is in use when lands are taken for public purposes. It may be said, why not leave the first and second patentee to arrange the price between them? My reason is this, they are not upon equal terms; the first patentee knows that he has the command of the market, for the public must either go without the article, or take it in his form, whereas the improver has no such alternative. His interest in the invention is reduced to a reversionary interest expectant upon the termination of the first patent.

1995. Would not it be for the first inventor's interest, if he rightly understood it, finding that his own patent met with no sale, when somebody came to him and offered him an improvement which would ensure him a sale, to come to terms?

It would, just as it is every man's interest to be honest, and yet there are laws against larceny. But your Lordship's question reminds me that the advantageous position of the first patentee in his negotiations with the second, is far more decided, when the articles of the first have found a market which they would

would lose if those of the second patentee could be brought into competition with them. The distinction appears to me to be this: the *jus tertii* intervenes, the right of the public to have the best article; and, therefore, when the improver and the patentee disagree, they not only injure themselves, but they injure the public; and thus I think that the cases approach to a parity with those in which land is required for public purposes.

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1996. Is not there another inconvenience inflicted on the public, namely, that the first patentee sometimes buys up subsequent patents for the purpose of suppressing them, in order to make his own machine still available?

Yes.

1997. Can you suggest any mode of remedying that evil?

I am not able to do so; but I believe that patentees are finding out that the best and most gainful mode in which they can use their exclusive privilege is, not to enhance the price of the article, but to ensure a great sale. Your Lordship knows, that if that principle were acted on, a monopolist has the power, though he does not often use it, of serving the public more cheaply than competitors have, because there cannot be the same economy of capital and superintendence applied to a trade which is divided among competitors, as would be practised when it is united in one concern. Not being able to devise any special means of meeting the evil to which your Lordship has adverted, I rest with some confidence, gained from an acquaintance of many years with patentees, on their gradually finding out that a patented article is not to be sold for a higher price than it will be sold for when the exclusive privilege is gone; but that the profit to the patentee ought to be derived from his command of the whole of the trade, instead of a part of it.

1998. That is, supposing what I have already suggested, that ordinarily, you must assume that the patentee will act according to his own interest?

I assume that in a case in which I am not able to devise an apt remedy; I did not rest upon it in the former case, because I flattered myself that I had devised an apt remedy.

1999. Your view is, that the monopolist, by the progress of good sense on such subjects, is finding out rapidly that his interests and those of the public approach very near to each other?

The case of the patent axles for railway carriages was a very remarkable instance of the progress of such views. That article was, by the assignees of the patent, who were men of large capital, forced into the market at a lower price than the axles which had the possession of the market were being sold for, although these latter axles were unprotected by a patent, and, consequently, might be made by all the world.

2000. The remedy you propose is the hope that good sense will increasingly regulate the commercial operations of the parties?

Being unable to suggest any efficient remedy in a particular case, I am not so much afraid of the evil, because I see that that is the progress of things in commerce.

2001. When actions are brought for evading patents, have you generally observed that the verdicts of juries have been in favour of the patentees?

The verdicts are almost uniformly for the patentee. If a patent is invalidated, it is generally by the operation of the law as laid down by the judges; very seldom by the verdicts of the juries. There is a strong bias in favour of inventors.

2002. Is not it also a fact, that in the great majority of cases, the patentee is really the injured party, and that justice is on his side?

As between him and the defendant, it almost always happens that justice is on his side; as between the patentee and the public, it does not always happen that his patent ought to be declared a valid patent. Your Lordship sees that several questions are usually raised in one and the same trial. As, for instance, the questions of whether the defendant has invaded the patent, and whether the patent itself is valid, which latter question may branch off into many others. Now, whether the patent is old or new, valid or invalid, it generally happens that the invader has derived the information upon which he works from the patentee,

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who may have revived a forgotten invention. Or again, it may be owing to the exertions of the patentee or the capitalist, who may be the proprietor of an invalid patent, that the article has been brought into use, and a market created by a great outlay, of which the invader seeks to take advantage, to the detriment of the plaintiff.

2003. The feeling of the jury, you think, is fairly to be explained upon the view, that they are satisfied that the defendant in the case does not come into court with clean hands, but that he has inflicted a wrong upon the plaintiff?

Yes; whatever the plaintiff may have done, however he may have become possessed of the invention, so far as the defendant is concerned, it is believed he has gained his knowledge from the plaintiff; that is the feeling of juries generally.

2004. Are the Committee to understand you, that in a large proportion of the cases litigated, the plaintiff has no right as against the public?

In a considerable number of such cases I should say it is so.

2005. I presume that in a great proportion of cases the inventions which are litigated are about the most useful?

Yes: the common course is this, that no patent is litigated unless it is profitable; that is a very obvious rule of conduct; and the most profitable are, generally speaking, the most useful.

2006. It results from that, that a large proportion of the most useful inventions are patented, when they ought not, in justice to the public, to be so?

I will give your Lordships an instance: I was counsel against a patent for an invention for covering the interior surface of cooking and other vessels with enamel. The state of the facts was this: the invention had been made half a century before the patent was taken out; but at that time the cost of the materials for enamel was so great, that commercially the invention was useless; scientifically it could be performed, but commercially it could not. But the great progress which had intermediately been made in chemical manufactures enabled the materials to be supplied very cheaply indeed at the date of the patent. The former invention had been forgotten, and a re-invention was made. Now it was quite clear that that former invention would, upon being proved, invalidate the patent. The judge nonsuited the plaintiff upon some point which it is immaterial to mention, and afterwards, the matter was arranged between the parties; the defendant taking a license, which is a very common termination of patent disputes, it not being to the interest of either party to throw the invention open to all the world, but, if they can, to agree among themselves.

2007. In that case the original discovery was not stated, was it?

It did not become necessary to state it, because during the plaintiff's case, from some omission, or some fault in the specification, or some point that I do not at the moment recollect, the plaintiff was nonsuited by the judge. He afterwards moved for a new trial, and obtained a rule, which was made absolute. The parties then agreed, and there was an end of the litigation.

2008. Had the discovery of the existence of the previous intention been made at that time?

Yes; we were there prepared to prove it; but it was not necessary for the defendant to go into his case at all, the plaintiff failing in making out his case, for some technical reason.

2009. Were the defendants in that case prepared to allege the priority of the previous invention?

Yes.

2010. In that case, should you say that there was any decision against the public?

No: I only gave it by way of illustration of what might have happened. In almost all cases in which a patent has been attacked by a *scire facias*, that is to say, where there has been no pirate, no party to influence the feelings of juries against him by having pirated an invention, but where the question is confined to this, is the patent good or bad, the verdict has been for the Crown, that is to say, invalidating the patent.

2011. Where-

2011. Where the public and the patentee are the parties, the feeling of the jury is different from what it is where the pirate and the patentee are the parties? *M. D. Hill, Esq.*
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Yes.

2012. Is there any other point upon which you can give information to the Committee upon this subject?

I have read both the Bills which are before the Committee; I think either of them would be a considerable improvement upon the law as it now stands. I am not quite prepared to say that I think either of them would exhaust the subject of the improvement of the patent law.

2013. Is there anything which you would propose to add to them?

There is a great unanimity of opinion, I believe, as to the propriety of one patent extending over the whole of the United Kingdom. But there is another point, of some practical importance, as to whether it should include the colonies. I would point out to the Committee what appears to me to be the inconvenience of a British patent extending over the colonies. Two or three years ago, a farmer in South Australia invented a reaping machine, which has been a very important gift to the colonies. It turns out that that same machine, or one so like it that the two patents would conflict, if there were two patents taken out, was some time ago invented in Canada. Now, suppose the Canadian inventor to have taken out a patent, inasmuch as he is not bound by law to have any agent in Australia or at home for supplying those machines, a colony at such an enormous distance would have been placed in very unfortunate circumstances in regard to the means of procuring the machine, and the expense of it when so procured. I am rather for leaving the colonies to dispose of their own patents. There is a provision in Bill (No. 2), which absolutely prohibits the grant of patents for imported inventions. It has struck me that that is open to some consideration. An imported invention may not be deserving of so long an exclusive privilege, but it may be deserving of some privilege. It appears to me, that the chance of an invention which is already made being imported without the stimulus of a patent, is much greater than the chance of an altogether new invention being made which is not in existence anywhere; but still that some stimulus may be necessary. I think it a matter worthy of consideration. Your Lordship adverted, some time ago, to the propriety of leaving to the tribunal to be constituted an ample margin of discretion as to making rules. Now, as the law at present stands, a patent might be granted for a less time than 14 years; and it therefore would be nothing new in principle, though in practice it would be new, to grant a patent for a less term than that of 14 years. That might be one way of meeting the difficulty.

2014. Do not you think now, that with the very easy means of inter-communication which exist between foreign countries and England, and the great competition which prevails among all manufacturers, and their endeavour to adopt any mode of improving their manufactures, the introduction of foreign inventions might be left to such motives?

I am informed, on good authority, that foreign inventions do lag behind, and are not brought into practice in England so soon as might be expected. I am rather myself inclined to attribute that, not to the want of knowledge on the part of the English manufacturers that there is such an invention, but to a fear that if they expended capital in creating a demand for it here, the moment a market was made, some competitor would step in upon equal terms with them, whereby they would lose the advantage of their prior expenditure.

2015. In farming, has not it taken many years to introduce into Dorsetshire the Norfolk mode of farming, and into Wales the Newcastle mode of getting coals?

If it is so difficult to carry an invention from one part of the country to another, it must be more difficult to bring it from a foreign country.

2016. Does not there exist generally, in other countries and in this country, a great jealousy of admitting foreigners to inspect recent improvements in machinery, under the apprehension that they will immediately transport those inventions into their own countries?

I believe there is. We know, historically, that it has been so with regard to the silk-throwing machine, and with regard to the mode of manufacturing iron

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in Sweden ; the persons who brought those inventions here, brought them at the risk of their lives.

2017. Do not you think that granting short patents for imported inventions would have the same effect that you contemplate the patent laws generally to have ; would not it have a forcing effect, so as to introduce into this country inventions in use in foreign countries at an earlier period than they would otherwise come into use here ?

Yes.

2018. On the other hand, would you not deprive the British manufacturer of an advantage which he would naturally have if he were active enough to introduce any invention in competition with the foreign producer, namely, the advantage of being able to make use of that invention without paying the tax which, by granting a patent, you would subject him to ?

Although he may be active, the man who comes first is still more active.

2019. In the one case, the man with the patent would obstruct everybody else ; in the other case, he would at once benefit himself, and allow others to have an equal advantage ?

In both cases he benefits others ; the man who brings a new article into use benefits others, even if he has not invented it. The capitalist, as I before said, appears to me to be nearly of as much importance as the inventor in bringing a new article into use.

2020. That applies principally to discoveries which are not very publicly known. Would not there be great inconvenience to the public in the monopoly which might be established in such a way in the case of very ordinary processes abroad, which have not been adopted in this country, but have been afterwards observed. Take such a case as the Hainault scythe ; would not it have been inconvenient to the public that a gentleman who happened to travel through Belgium should have come here and taken out a patent for the Hainault scythe ?

If it had been previously used in England, he could not have done so ; he must have been the first importer. I think it may accelerate the use of an article in this country ; and if you have such a tribunal as has been mentioned, they can exercise a discretion as to the length of time for which a patent shall be granted, and may regulate that discretion by the circumstances of each particular case. The use of a scythe must be open and notorious ; a man cannot shut up his fields from observation ; the use of a machine is not so, and therefore, a man who acquires a knowledge of the use of a machine, and brings it over, may deserve a patent for a longer time than he who acquires a knowledge of the use of a scythe.

2021. Are not the inducements to granting a patent in the case we are now discussing, the introduction of a foreign invention into this country, very much less than the inducements to granting a patent for an invention made in this country. In the latter case, are not the inducements first to stimulate invention ; secondly, to secure the publication of the invention ; and, thirdly, to accelerate the application of it. When you apply the principle of a patent to the introduction of an invention from abroad, the two first considerations vanish from the question, the invention is secured, and the publication is secured. It is the third consideration alone, the acceleration of the application of it, which remains ; consequently, does not it necessarily follow that the inducement or reason for granting a patent in the case now under consideration is very much less than the inducement to granting a patent under ordinary circumstances, two of the inducements having entirely vanished, the consideration alone remaining, being that of accelerating the application ?

The inducements are reduced in number ; but whether the inducement which remains may not still by its weight far overbalance the objections to granting a patent, is another question.

2022. Do you think there is more necessity for an artificial acceleration of the application, when the invention is in existence abroad, than when it is in existence in this country ?

Yes, I think so.

2023. Why ?

2023. Why?

By reason of the impediments to communication which are made by distance, by difference of language and manners, and so forth. Supposing it in the centre of China, for instance, it is quite clear there would be much more difficulty in a new invention finding its way here, than if it were already established in some part of our own country.

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2024. Have many inventions been patented from the interior of China?

I am only giving an illustration.

2025. Is not it practically the case, that from France, Holland, Belgium and the United States the most important inventions have come?

It may be so; but I remember in Thornton's History of Turkey he gives an account of a Turk who had invented a mode of making cast iron which should be malleable, like wrought iron; the secret died with the man; and after his death Englishmen spent some money and time in trying by buying his utensils, and taking such steps as occurred to them, to find out the secret, but they did not, which shows that some inventions are lost.

2026. Have not you already stated in your evidence, that the main ground upon which you think the patent laws may be supported is the acceleration of inventions?

Yes; therefore it was I said I regarded this stimulus as rather upon capitalists than inventors. It was with reference to that opinion that I ventured to advert to what I had said at an earlier period, that there must be a combination of the inventor and the capitalist to bring every invention into action; and although the invention is already made, the services of the capitalist are as much required for a foreign invention which may have been long made, as for an English invention the moment it is made.

2027. Adopting your expression, that this is an affair of the capitalist more than of the inventor, is not it correct to say, that the granting of a patent in the case now under consideration is really giving a bounty to affect the distribution and application of capital?

Yes, I think it is; but I will further consider that point. Mr. Webster reminds me that he and I were engaged in obtaining the renewal of a patent for drying wheat, which patent was a foreign invention; but it was clearly proved, that but for the application of English capital, as far as could be seen, it never would have been brought to England. The Privy Council were so impressed with the importance of the invention, that they did more than grant a patent; a patent having been already granted, they extended it.

2028. Do you think in that case there was sufficient evidence that English capital would not have brought the invention to this country without a patent?

It might be brought in a book, that is to say, it might be described.

2029. Might not English capital have brought it into operation without the incentive of a patent?

It might be fairly believed that it would not; for this reason, that, even with the aid of the exclusive privilege, it had not in 14 years been profitable, so as to remunerate the patentee; for if it had, the Privy Council would not have granted an extension.

2030. Have you any observations to make on the 13th clause of the Bill?

Towards the close of the last year, being Recorder of Birmingham, I was applied to by the Mayor on behalf of a committee which had been established in that town, to forward the views of the Commissioners of the Exhibition, on the subject of reforming the patent laws, and I ventured to advise those gentlemen to confine their views for the amendment of the patent laws to such points as would be required with regard to the purposes of the Exhibition. I said, it appeared to me that it would be extremely advisable, if, with reference to this Exhibition, inventors might be guaranteed from the consequences of publishing their inventions, by some provision, which should make the disclosure of their inventions in that Exhibition no legal publication, so as to deprive them of a patent. To that extent it was, I thought, that a provision in the nature of this 13th section might be made; but it did appear to me, upon reading it, that the 13th section went a little beyond that, and I was not quite satisfied that, in so far as it did go

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beyond that suggestion, it would be politic to pass it into a law. I will further consider the subject, and be prepared to state my opinions upon it upon a future occasion.

2031. You prefer that the provision should stand as it exists in the Extension of Designs Act, which has already passed, and not in the shape in which it stands in the 13th clause of the Bill before the Committee?

I have not read that Act; but I understand it does carry my suggestion into execution. I will compare that Act with this clause, and enable myself to speak more determinately upon it.

2032. Do you think generally that an inventor should be enabled to exhibit his invention to the public without thereby injuring himself with regard to the right of afterwards taking out his patent?

I think it highly desirable for the purpose which I have mentioned to bring inventors into communication with capitalists, so that at a very early period they may disembarass themselves of the commercial part of their undertaking, and go back to their laboratories. Inventors have sometimes been utterly ruined, not because their invention was worthless, but because they were not good men of business, or not in possession of sufficient capital to work their patent advantageously.

2033. You think that that could be practically carried out?

I think so. At present, an inventor is afraid that by his secret oozing out, he shall lose the power of obtaining a valid patent.

2034. Is there any other point upon which you wish to make any observation to the Committee?

When there is a good means devised of publishing to the world all matters relating to patents, it appears to me that it would be exceedingly useful to give a facility to inventors, among whom there is a large class who do not desire, or do not very much desire, an exclusive privilege, who certainly do not desire it so much as to incur the trouble and cost of a patent, even if the cost were much less than it is, but who do desire very much to use their invention themselves without the danger of having their own invention taken from them by a subsequent patentee; I should therefore suggest, that this office, which must be created for the purposes of advertisement, and so forth, should receive any statement of an inventor as to his invention, and file it. That would be a publication to the world that the invention had been made, and useful information to the world, of which they might avail themselves. The inventor would, I should think, take that trouble, and it would not be a great deal of trouble, for the purpose of preventing the possibility of his being shut out from the use of his own invention. It has occurred to me, that the best mode of publishing these advertisements of applications, and the information which inventors must give to the public in one way or other, would be this: follow the example of the Commissioners of the Exhibition. Say to a printer, "Now, here is a fund arising from the payment for these advertisements, which the applicants must pay for; all these advertisements you shall have to print in a periodical work, say a weekly periodical work, upon condition that you submit to a regulation of price; and also that your work contain all the other information which the office may think it important that the public should have in reference to inventions and to patents." If this periodical work were low in price, I may venture to say, of my own knowledge of working men, it would be in almost every workshop in England: where there are five or six or ten men working together, they would subscribe to buy this weekly periodical. At the end of the year I should propose that the information contained in the 52 numbers of this work should be collected and arranged in a book of reference, with various indices, indices of names, indices of subjects and so forth. In that case, in the course of a few years it would be impossible for any one to be ignorant, unless he were wilfully ignorant, of a patented invention, because in the course of 10 minutes he could see all the improvements, for instance, which had been made in weaving, or the improvements which had been made in smelting iron, and so on. The same man does not want to know what improvements are made in smelting iron, and what improvements are made in weaving, and what improvements are made in other things; but his desire of information has regard to one class of subjects, and, with proper facilities, he could inform himself of what had been done in that class in a very short time.

If

If this suggestion of mine should be found to answer in practice of inventors recording their inventions, the public would not only have a record of patented inventions, but of all inventions which are made.

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2035. Have you seen the plan of the indices proposed by Professor Woodcroft? I have; and I think it is admirable.

2036. Would not such an index meet the views you have now expressed to the Committee?

As far as indices are concerned.

2037. Are not you afraid that by a very great multiplication of specifications of the nature you describe, you would increase the difficulty which any inventor must experience in finding out whether his invention is novel or not?

An immense mass of unarranged and unindexed specifications would have that effect; but with proper indices I do not think even a million specifications duly arranged would furnish any impediment. A man does not want to know all inventions; he wants to know the inventions which refer to his own particular trade.

2038. Do not you think that in the event of such a record as you contemplate of unpatented inventions being kept, it would be necessary that it should be subjected to some control as to what inventions should be admitted, otherwise would not you be invaded by supposed discoveries of perpetual motion and squaring the circle, and other absurdities?

If there were any danger of that kind, it would soon show itself, and then there would be this obvious principle; the applicant would be told, "You have sent us an invention, as to which, if you desired a patent for it, you could not have one." Suppose any man found out how to square the circle, he could not have a patent for it; it does not present itself in a vendible form.

2039. He could in the case of perpetual motion, could not he?

Not for the abstract principle; he could for a particular machine; and if such a machine were applicable to useful purposes, the inventor would make a valuable gift to society by throwing it open, which filing a description at the office would do.

The Witness is directed to withdraw.

Mr. JOHN MERCER is called in, and examined, as follows:

Mr. John Mercer.

2040. WHAT is your occupation?

I am a calico printer, and have been so between 30 and 40 years.

2041. Have you ever taken out any patents yourself?

Yes, I have.

2042. Have you found any inconvenience yourself in taking out patents, from the difficulty of ascertaining whether your invention was a novel one or not?

Yes; I had had no means of making myself acquainted with what had been done before, although I had been in the habit for many years of taking in several periodicals, the "Mechanics' Magazine," and occasionally the "Repertory of Arts," and other patent journals; but they do not give the specifications in full, nor do they give altogether the whole of the specifications which may have been done in the way of invention on any particular subject.

2043. Would that difficulty have been obviated if there had been printed specifications for you to refer to, with an index, such as that which Professor Woodcroft has proposed?

Yes, and one periodical which will give us a description of all inventions would be valuable.

2044. You mean that if there were some one particular publication which supplied an account of all inventions, that would answer your purpose?

It would be universally and generally taken. We have at present to take in various publications; one patent agent publishes mostly his own specifications, viz. those he has had to do with; another patent agent publishes his, and a third patent agent publishes his; and they are mixed up with a great deal of other matter,

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matter, so that now there is practically no means of ascertaining what has been done. If we were supplied with the specifications in the way which has been stated, it would be a very great saving to us, and prevent many useless patents being taken out.

2045. Do you think such a work would be generally taken in?

Every one engaged in discoveries would take it. I think if it were to be begun, it would be desirable to divide it into two periods, ancient and modern. Let one division end with the year, and let those who wish to begin from the present time do so, or they might take the old ones as well if they pleased.

2046. If there were an index by which you could get to the particular class of inventions which you desired, then the additional matter would be no inconvenience to you in any search which you might have to make, would it?

Yes.

2047. Supposing all which you call ancient patents were published together, making one volume up to a certain period, and then that the periodical publication of the current specification should begin from that period, would not that be the best mode?

Yes, those would chiefly be taken in at the great libraries in towns?

2048. Would not the same difficulty apply to a periodical publication, giving merely a record of old patents; would people be likely to take in such a register, appearing in the form of a periodical?

Yes; but I think it would be more likely to be distributed in the country if it came out periodically, because people can spare 4*d.* or 6*d.* weekly, when they would not spend many pounds to buy a large volume; yet the libraries in all the large towns would take them if published at once in many volumes, and if indexes were published, the inventors in the country could get a sight of them.

2049. Supposing you had every specification published up to the present day, and after that, the publication were to go on periodically every week, would not that answer the purpose?

Yes; and I should begin, for example, so as to include all unexpired patents; such a periodical would be universally taken in, in my opinion, in all parts of the country.

2050. Do you think they would be taken in in the libraries of Mechanics' Institutes?

Everywhere; and in reading-rooms of every kind; even in such little villages as I come from; there would be no reading-room without such a periodical.

2051. You are more conversant with chemical patents than mechanical, are not you?

Yes; mostly chemical.

2052. Have you taken out many chemical patents?

I think I have taken out six or seven; in 1822 or 1823 I discovered the bronze colouring; that is, I found that by the use of oxide of manganese, I could make a colour; but I was ignorant of the nature and forms of patents, and had not the command of money; I understood the cost was very great; I was a servant at that time to the firm of Ford, Brothers and Company; I laid this colour before them, and thought I should have taken out a patent for it; I had written out a sort of specification in my plain way; Mr. Ford, however, said he did not like the colour, and I was discouraged; but in a short time I improved it, and it was a thing which made a great deal of money; I did not take out a patent for it, but it so happened that we kept it in our own hands for a number of years, and it was profitable; I discovered a few years afterwards the use of chrome; this was just the same; I made a specification in my own way, but knowing very little how to apply for a patent, that fell to the ground also.

2053. In the case of those two first inventions of yours, did you try at all to take out a patent?

No, because of the difficulty and the cost, or else I should have done so.

2054. You would have done so but for the cost, and your not knowing how to draw up the specification?

Yes; I did not know how to set about the thing properly, and had not money.

2055. Have

2055. Have you received any remuneration for that first invention which you have mentioned? *Mr. John Mercer.*

Not till I became partner; the thing doing so well, Mr. Ford gave me an interest in the concern. 26th May 1851.

2056. That was in consequence of the unpatented improvement which you had introduced?

Yes, that and others; many printers at once resorted to the use of this colour, which they were able to do; but I put a new and superior face to it from time to time, and so we were able to keep the lead.

2057. So that to make up for the patent protection, which you could not get, you still obtained an advantage for yourself, and for the person who afterwards took you into partnership, by making gradual and progressive improvements?

Yes.

2058. Do you think, from what you know of that particular case, that you would have made more money supposing you had taken out a patent in the first instance?

A great deal more.

2059. Do you think you would, if you had taken out a patent in the first instance, have proceeded to make those subsequent improvements which you speak of?

Those subsequent improvements were not the result of a collision with other people, but the result of my efforts to do the thing I was doing, well.

2060. Do you think, that supposing you had been possessed of a patent for that invention, you would equally have made those subsequent improvements?

I think I should, from a liking I had to discover and find out new things.

2061. Those improvements being departures from your original patent?

My original patent would not have altered the course of our business at all.

2062. Before you produced that original invention of yours, had you thought of obtaining a patent at all?

I never thought of a patent till I made the discovery of the colour, and I fancied it would lead to great things; I knew the moment our neighbours saw it, they would be able to do it too.

2063. You had not thought of the patent till you had made the discovery?

No.

2064. Then, in fact, the prospect of obtaining a patent had nothing to do with your original invention?

No. In manufacturing neighbourhoods, such as ours, within a few miles of each other, if one is before the rest in anything, they are all watching him. I will mention a case: we had a colour called grey, the invention of which was a very peculiar thing, and a very good thing for us while it was a secret; but one of our own servants was induced to steal it, and we had to put him in prison for it; we had to guard the place in which we kept our things, lest parties should get at the secret.

2065. In the case of the grey which you say was stolen, had not that invention been patented?

No, it was not; we printed a great quantity till the secret was stolen by one of our servants; it was analysed, and the secret was discovered; parties soon ascertained of what it consisted.

2066. You had no patent for that invention?

No.

2067. You have stated that, in order to keep the lead of your neighbours, you were obliged to continue making fresh inventions as fast as possible in regard to new colours; should you have been in as great a hurry to make those new inventions if you had been protected in respect to your first invention by a patent?

That is a question I can scarcely answer; what I have to say is, that I do not think it is fair, when you have discovered a good thing at great labour and considerable

Mr. John Mercer.
26th May 1851.

siderable expense, to be beset by others to get it any or every way at no expense to themselves, reducing its value to you, and joining at what value is left.

2068. After the colour was stolen by the servant, was the price of the articles rendered much cheaper?

It is usually the case; but my memory will not enable me to answer that question in this particular case.

2069. You say you have taken out six or seven patents?

Yes.

2070. In the course of taking out those six or seven patents, did you consider it as one great inducement to you to pursue inventions of that kind, that you had the prospect of obtaining a patent?

No.

2071. From your experience upon the subject, should you say, that if the law for securing patents for inventions were made simple and cheap, it would tend to encourage persons like yourself who have the power of producing inventions?

I think it would. The greatest number of inventions are made by plain, and often poor people, but they have no encouragement to invent under the present patent laws. I should not like, if I had to give advice on the subject, to make the patent laws extraordinarily cheap, though I would make them much cheaper than they are, and more adapted to the circumstances of the poor man. Supposing a man made an invention, and had a straightforward way of telling what he had done, and securing it by date and progress number, he should be allowed to do so upon the payment of something, suppose it were 10*l.*, and should have the privilege of proving his patent for 12 months for that sum, six months of this twelve being given him to enlarge or complete his specification; at the end of 12 months, if he found his patent to answer, it should be secured to him (there are plenty of people who will find him a little money if it answers, and if it does not answer, all he will have lost will be his 10*l.*) for another four years, say upon the payment of 40*l.*, making five years; and then, at the end of five years he might pay 50*l.* more, and have a second five years, and a third five years upon the payment of a further sum of 50*l.*, making three five years by paying three 50*l.*; if it was a failing patent he would know in one year, and would only lose 10*l.*; and as expenses must be paid, successful patents ought to pay them; so that the poor man might have the chance of getting security without much loss. In my case I could not have the chance of security without laying out 300*l.* or 400*l.* That prevented my taking out patents for many of my greatest inventions. If that could be done, it would very much encourage and assist the artisan and labouring man.

2072. Do you think it often happens that poor men lose much time and money in trying to make inventions?

I do not doubt but they do; but I do not think they often receive injury from it. In cases where it fails, it makes them generally cleverer men; it makes them think and read; and by practising their reasoning powers, they are improving themselves, even though they do not make great discoveries.

2073. Do not they lose time in this way, that for fear of betraying their secret to their fellow-workmen or to their masters, they work away in secret at a thing which is already well known, and thereby incur difficulties which might be obviated if they had consulted other people who happened to have a different sort of knowledge from that which they possessed themselves?

No doubt many seek to invent things which are already known, and many patents are taken out which are foolish and unmeaning, and by making patents overcheap there would be an increased number of such cases; but still there should be some way of giving a plain man, who has to begin life from nothing, and has all the world before him and nobody to help him, encouragement to go on with his invention.

2074. You think the plan which is suggested of paying 10*l.* at first, and so much more at the end of so many months, would be a good means of giving him protection?

I think it would.

2075. Would not the man of the character which you describe as being likely to

to invent be likely to get higher wages as a workman, if his master were to find that he was constantly suggesting improvements in the mode of carrying on the business?

Mr. John Mercer.

26th May 1851.

Yes, but in the practical and scientific part of the business the servant often is superior to his master, and frequently the master could not afford to take out a patent, so that for many valuable discoveries neither servant or master get the value of profit by the invention.

2076. Supposing you had never taken out a patent; you say the result of your first two inventions was to place you in partnership with another man, in some way or other the ability you showed would have put you in better circumstances even without a patent, would not it?

That is so; but many individuals take out only one patent; it is the only discovery they have ever made, and it is the work of their life. That has not been the case with me.

2077. Still you made money by your first discovery, which you did not patent?

A great deal was made by it.

2078. Did it bring much money into your own pocket?

No; at the beginning of 1825 I was made a partner; but it so happened that the first two or three years of my partnership were the years of the panic.

2079. Have you ever considered what would be the effect of entirely abolishing the system of patents?

It would discourage invention very greatly, in my opinion. I have been obliged to carry on my inventions in the night. There were no less than eight or ten titles for patents, which covered mine; one was on exactly the last day, the 24th of October. If anybody had obtained a hint of what I was doing, he might have obtained all the advantage, and thrown me entirely out.

2080. What change in the law would obviate that evil?

Depositing a brief specification at once, and allowing six months for complete specification.

2081. Your deposit of a full specification would not prevent another person depositing a specification which would have included yours, would it?

If my number were before his, I should have been first, and have had the patent.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till To-morrow,
One o'clock.

Die Martis, 27^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

JOHN LEWIS PREVOST, Esquire, is called in, and examined as follows :

J. L. Prevost, Esq.

27th May 1851.

2082. YOU are Consul-general for Switzerland, are not you ?

I am.

2083. Of what Canton are you a native ?

Of Geneva ; I should say that by profession I am a merchant.

2084. Have you been a merchant in this country long ?

For six or seven and thirty years.

2085. During that time have you transacted business for the Swiss Confederation ?

Yes.

2086. Can you state to the Committee whether there is a law in the Canton of Geneva for the protection of inventions ?

There is no law in the Canton of Geneva for the protection of inventions, and, I believe, in no part of Switzerland.

2087. You think there is no such law in the other Cantons ?

Yes.

2088. Are you aware of any inconveniences which arise in Geneva in consequence of there being no patent law ?

No.

2089. Is there an absence of invention in that country ?

There is a good deal of invention, particularly in the watch-making trade.

2090. The process of manufacturing soda-water was invented at Geneva, was not it ?

Yes, by Mr. Paul.

2091. Have you had any experience of the manner of taking out patents in this country ?

Yes, in four or five instances.

2092. Have you yourself had anything to do with advising patentees ?

I have advised the parties, and paid for the patent ; I have known the course of the proceedings.

2093. Has that sufficiently called your attention to the subject as to enable you to form an opinion upon whether the present state of the law is a good one ?

It happened unfortunately that none of the patents which I assisted in taking out were successful.

2094. That might not be the fault of the law ?

It might not ; it has, however, made an impression upon me.

2095. Did you obtain letters patent in all those cases ?

Yes ; in three of the cases there was no success or profit realized.

(77. 11.)

O O 2

2096. Can

J. L. Prevost, Esq.

27th May 1851.

2096. Can you remember whether it was the inventor for whom you took out a patent, or a person merely importing the inventions from Switzerland?

In two cases it was for the inventors; as to the rest I do not know.

2097. To what do you attribute the want of success; was it attributable to the imperfection of the invention, or to any subsequent infringement of the patent?

In one case there was a claim of a previous inventor, who satisfied me that he had a prior title; in two cases the inventors never took any steps to work their patents.

2098. Was that on account of their difficulty in obtaining capital to establish the operation?

I do not know; one of them is dead; the other I have not heard of since the patent was obtained, and paid for.

2099. Do you remember what was the nature of the inventions?

Not well enough to describe them.

2100. Were they mechanical or chemical?

Three or four were mechanical, and one was chemical.

2101. In the case of those inventions which you have mentioned which were patented in this country, but to which the inventor, or patentee, paid no attention, the effect was to obstruct the public here, and to do no good to the inventor himself?

Certainly.

2102. The patent did no good to the inventor, but prevented other inventors improving on the principle, it being necessary for them to adopt that principle which was covered by the previous patent?

Yes; and another evil was, that the inventor in each case paid about 400 l.

2103. Do you think, if the cost were very much diminished, and a much more simple means adopted of obtaining patents, those objections would be obviated?

I am not sufficiently acquainted with the law to suggest amendments; I have not studied the subject sufficiently.

2104. From your knowledge of Geneva, do you think there would be any risk in abolishing the patent law altogether, leaving this country in the same position that the canton of Geneva is in in that respect?

As a matter of opinion, I think that abolishing the patent laws would be the best course.

2105. Will you mention what are the chief manufactures in Geneva?

Watchmaking and jewelry.

2106. Where do the cotton manufactures come from?

From Zurich and St. Gall chiefly.

2107. Where does lace come from?

A trifling quantity from Geneva, but the bulk from the centre of Switzerland, Appenzell and other cantons.

2108. To your knowledge, have many improvements been made by inventors in Geneva in respect to watchmaking?

I have all my life heard of a number of inventions which are made in watchmaking at Geneva; I have seen some of the tools as matter of curiosity, not of business.

2109. A very great improvement has been made in that line of industry?

Very great.

2110. And it is now in a very flourishing state, is not it?

I hear manufacturers generally complain, and cannot speak to the degree of prosperity of that manufacture at present.

2111. Do you imagine that if there had been a patent law, that progress would have been delayed?

I can

I can hardly say that ; I am not prepared to pronounce an opinion upon the subject. J. L. Prevost, Esq

27th May 1851.

2112. Can you enumerate what are the principal articles exported from the states of the Swiss Confederation ?

Silk ribbons from Basle ; silk stuffs from Zurich ; large quantities of printed calicoes, embroidery and other cotton goods from St. Gall and other cantons ; linen goods and straw-plaiting and hats from Aarau ; watches and jewelry from Geneva ; and Neuchâtel, some leather.

2113. Do not those articles, namely, silks, manufactured cottons, watches, &c. meet with the products of competing countries in third markets ?

Everywhere.

2114. Would it be possible for the Swiss successfully to compete in those third markets, if in the production of those articles they were in arrear, either as to the ingenuity of their machinery, or any other means by which labour is either cheapened or rendered more efficacious ?

I should think not.

2115. Have you found that the absence of patent laws in the Swiss Confederation causes the Swiss manufacturers to be defeated in foreign markets ?

No.

2116. From that you draw the inference that patent laws are not essential to successful competition in those products which depend upon machinery ?

Decidedly.

2117. Upon that ground you form the opinion which you have already intimated, that the abolition of the patent laws in other countries would not produce the injurious effects which seem to be anticipated ?

Exactly so ; that is what I mean.

2118. When inventions in the watchmaking trade are made in France, are they immediately introduced into Switzerland ?

I should think so, if they are useful.

2119. There is no want of persons to import them into Switzerland, although those persons thus importing them obtain no monopoly ?

When a patent is taken out in France or England, the process is published ; therefore it becomes the property of the public in Switzerland ; the Swiss have access to the French or English patents.

2120. In that way the Swiss have the benefit of the invention without the charge of the license ?

Yes.

2121. And so far they have an advantage ?

Certainly.

2122. Is not Switzerland a country which labours under many considerable disadvantages as an exporting country ; namely, that, being a mountainous country, her means of communication are difficult ; that being 4,000 feet above the level of the sea, an increased difficulty of communication arises ; and being 1,000 miles distant from the sea, her water communication is incomplete ?

There being no ports, and having to go through other countries for the transit of her goods, there is a disadvantage, of course ; they have an advantage in respect to silk ; they are very near some Italian silk districts.

2123. Do not the circumstances already enumerated constitute serious difficulties and impediments to Switzerland becoming an exporting country ?

Yes.

2124. Is not Switzerland, notwithstanding those impediments, a country exporting considerably and advantageously ?

Yes.

2125. Are not the articles which Switzerland exports, articles the production of which is materially dependent upon ingenuity, invention and mechanical contrivance ?

To a great extent that is the case.

(77. 11.)

O O 3

2126. If,

J. L. Prevost, Esq.

27th May 1851.

2126. If, then, Switzerland is now successfully exporting, to a great extent, articles dependent for their production upon ingenuity and invention in machinery, is not it clear that the absence of patent laws in Switzerland does not constitute a fatal, or even a serious, impediment to the progress of invention in those manufactures?

It is quite clear to me.

2127. Do you know what the transit duty from Geneva to Marseilles is?

No.

2128. Do you know it to be low?

I forget the amount.

2129. By the recent Treaty with Piedmont, are you aware of the transit duty between Genoa and the other sea-ports of Sardinia and Geneva?

I know nothing of the transit duty.

2130. Have you ever heard any desire expressed by manufacturers or by inventors, in Switzerland, that they should have the benefit of the patent laws?

I may have heard it in conversation.

2131. Does such a feeling prevail generally among that class of persons in Switzerland?

I believe not; it may prevail in a small minority, probably, among some manufacturers.

2132. Have many chemical or manufacturing inventions been made in Switzerland, to your knowledge, within the last few years?

No doubt some; but they do not occur to me at this moment.

2133. Is it your opinion that the existence of a patent law would tend to develop the inventive faculties of the Swiss. Would it act as an encouragement or an inducement to inventors?

I doubt it.

2134. You think the knowledge that the public has the full benefit of any invention made does not tend to discourage invention, or the application of talent to that particular line?

I think some men are gifted with the power of invention, and will invent, without reference to patents.

2135. Have you at all the impression that there is in Switzerland a sluggishness of invention, practically injurious to her interests, and which would be corrected by an artificial stimulus like that which the patent law would supply?

I have no statistical facts on the subject; but I have an impression that the number of inventors in Switzerland is in proportion to the number in other countries.

2136. You do not think that invention in Switzerland is in arrear, as compared with other countries, in consequence of the absence of patent protection?

No.

2137. Can you point to any particular remarkable discovery in any branch of science, or to any great improvement in manufacture, which has been made in Switzerland, in the last few years?

In 1840 Professor de la Rêve published his invention of gilding by galvanism. He took no patent anywhere. Later, Professor Schönbein, of Basle, invented gun cotton, and took a patent. Music boxes were invented at Geneva, and are still manufactured there, almost exclusively.

2138. You mentioned that two of the persons who applied to you for advice in taking out patents here, took no steps to bring their patents afterwards into use?

They took no steps.

2139. From your communications with them, are you aware whether they took out those patents here merely to prevent other persons from importing the discovery from Switzerland, or whether they took them out with the intention of making money by them in this country?

They

They were not Swiss; one was a Frenchman, and the other a Russian. Both of them, I believe, took out their patents for the purpose of making money by them.

J. L. Prevost, Esq.

27th May 1851.

2140. In this country?

In this country. One of them died. From the Russian I have not heard; it was through a banker that the business was done.

2141. The Committee may collect generally from your evidence that you think that a country can get on quite as well without a patent law as with it?

That is my opinion.

2142. Is that a general answer, or applicable only to Switzerland?

It is applicable to England.

2143. Is that opinion founded upon your experience in Switzerland, or upon what other ground does it rest?

I have had no experience in Switzerland, except the fact, that I believe there is no patent right at all there. My experience here, which is small, I grant, also contributes to my forming that opinion.

The Witness is directed to withdraw.

WILLIAM WEDDINGE, Esquire, is called in, and examined as follows: *W. Weddunge, Esq.*

2144. YOU are a native of Prussia, I believe?

I am.

2145. Will you be so good as to state what your occupation there is?

I am a member of the Board of Trade and Commerce, and at the same time a member of the Patent Commission.

2146. Will you be good enough to state what is the system adopted in Prussia with regard to protection to inventions?

We have the principle in our country to give as much liberty as possible to every branch of industry and art, and, considering every sort of patent as an hinderance to their free development, we are not very liberal in granting them. We merely grant a patent for a discovery of a completely novel invention, or real improvement in existing inventions. As to the information of the members of the Patent Commissions Board, the following means are used; first, German and foreign publications treating on the subject; for instance, "Dingler's Technical Journal," the "London Journal of Arts and Sciences," the "Mechanics' Magazine," the "Repertory of Patent Inventions," &c.; then experiences acquired on scientific journeys performed by members; experiments executed by the same; models, drawings, &c.,—furnish the means for judgment and appreciation. If by any of these means the members acquire the opinion, that the subject presented to their judgment does not bear the distinct character of an invention, or real improvement of an existing invention, the patent is refused.

2147. Would use and publication abroad have the same effect as use and publication in the territory of Prussia?

Quite the same.

2148. Does this law extend to the Zollverein?

No; it is a pity, I think, that it is not extended. Patents are only granted to Prussian inhabitants. If any foreigner asks for a patent, he must name a gentleman who resides in Prussia, in whose name the patent is inscribed. If any such patent is granted in Prussia, a person may go to Anhalt Dessau, for instance, which is near to Berlin, and there he will not find any obstacle to prevent him from the execution of an invention patented in favour of another in Prussia. Our countrymen lose sometimes, in such a way, the benefit of their patent. We should be happy to see it extended over the whole Zollverein. There have been some communications made several years ago between the different states

W. Weddige, Esq. of the Zollverein, treating of the means of enabling any one to procure himself a patent, and protecting his invention in the whole Zollverein.

27th May 1851.

2149. Will you have the goodness to state what are the steps that an inventor must take in order to obtain a patent in Prussia?

He has very little to do. He writes some lines to the Minister of Trade and Commerce, by which he asks for the patent, adding a full description and specification. All the members of the patent office are obliged to keep it secret, so that every thing for which a patent is asked, must be delivered to the Minister sealed.

2150. Is this a full specification, or only a general description?

It must be a full specification.

2151. You do not grant a patent for an immature invention?

No; we never grant patents to extravagant ideas.

2152. Must the improvement be already matured before you grant the individual a patent, or is the patentee allowed to improve his description of his invention during any subsequent period?

He receives a patent upon the specification which accompanies his petition as soon as the part of the invention presented is acknowledged to be new.

2153. When you speak of the extension of a patent, that involves, of course, a new inquiry and a new specification?

Yes, a new specification.

2154. Is an application for a patent ever opposed by a person either having or believing himself to have a similar invention?

Sometimes this is the case; but then we consider merely the date the specification or application bears.

2155. Is any notice given beforehand to any persons, that they may come forward and oppose the application?

No.

2156. The parties have no knowledge that such an application is to be made?

No.

2157. It depends entirely upon the members of the Patent Commission?

Yes.

2158. A third party is not admitted as an opposing party?

No.

2159. What would be the law in the event of its being discovered, after a patent had been granted, that the invention or the process had been in use previously?

Of course the party loses his patent right. In the guarantee of the patent there are always some lines to say, "As far as we are acquainted with it, it is new." We may get by and by the knowledge that this may not be a new invention; it may be described elsewhere, or some of our own countrymen may have tried to do it, or it may be executed already; therefore the members are obliged to say, "As much as we know, we regard this as new."

2160. Will you be so good as to state what is the constitution of the Board to whom those questions are referred?

There is one member for metallurgy, for the working of different metals, and so on; one for chemistry and natural philosophy, one member for civil engineering, and one member for mechanical inventions, working machinery, spinning frames, looms, and so on; since the introduction of railways, there is one also for railway matters.

2161. Is there any person with any professional legal knowledge?

There is no lawyer.

2162. Do you always sit as a Board to inquire into the particulars of each invention, or is each invention referred to the particular head of the section; an invention in chemistry, for instance, to the chemical member of the Board?

We sit as one Board; the application is made at first to the Minister; the Director of the department of Trade and Commerce writes a statement, and delivers

delivers it to the body of the Patent Commission. At the head of the Patent Commission is the Under Secretary of the Board of Trade and Commerce. Some of those members have studied the law; I have done so myself, and directed my attention chiefly to the technical part of the subject. No member who has not served, or shown his qualification for five years, can fill this place; he does not become a member before the expiration of the alleged time; he goes through a previous examination by the members in taking part in their occupations. Suppose an application is made, the Minister transfers it to the Commission; the Director points out the member to whose judgment the subject is to be submitted; his explanation is always given at the sitting of the Board, and the members judge, after hearing his report, whether the invention is deserving of a patent or not; this done, a general report is sent by the whole body to the Minister, in which every single member has the right of expressing his individual view on the subject.

W. Weddington, Esq.

27th May 1851.

2163. Are not the decisions of the Board very much influenced by the decision of the particular member to whom that branch especially belongs?

Yes.

2164. Is the office of the Under Secretary an office which presupposes some knowledge of the law?

The chairman must have a complete knowledge of the law, and, at the same time, enjoy a general technical and scientific education.

2165. Is there any inquiry as to the value or importance of an invention, or only as to its novelty?

In the Board the question is only its novelty; but the Board has the right at the same time to mention to the Minister, in a written declaration, their reasons to grant a patent, or to refuse it; at the same time it is left to them to propose a longer or shorter period for the patent, according to the value of the invention or improvement.

2166. The same privileges are not granted to all inventions?

No; the term is from three years to 10 or 12 years, according to the value of the invention or improvement.

2167. Do persons who obtain patents pay more according to the duration of the patent?

No; it is completely free; they do not charge for the patent; it is merely the writing, and sealing, and the stamp; nothing is charged for the patent itself.

2168. What is the longest time for which a patent is granted?

Twelve years; sometimes it gets prolonged.

2169. To what extent?

Three years, or four or five years more, according to the value of the invention, and the difficulty of executing it. The patentee is always obliged to give evidence of the execution of his invention at the expiration of six months; if he is not enabled to do so, he receives an admonition, in consequence of which, he generally gives the reasons of the delay, and the Minister is frequently inclined to extend the time to a year, as soon as the Board regards these reasons as proved. An invention or an improvement can be sometimes of importance, and of such an extent, that it is impossible to put it in such a period in execution.

2170. If he does not set it to work, does he lose his patent right?

Yes, if he does not respect the admonition.

2171. Is the patentee bound to give a notice when he commences to put it to work?

Yes, he is obliged to mention it to the head of the police in the town where he is residing, or in the country: he must mention that he has put it in execution, and he then receives a testimonial, which he is obliged to send to the Minister.

2172. What is meant by putting it to work; is it merely that his machinery is perfect, or that it can be made use of?

Suppose a man has invented a steam-engine; he executes that steam-engine; he shows it to the police, and receives a testimonial as soon as it is proved by the examiner that it does correspond with the specification of his patent, which is handed to the police for the examination. It is not always necessary to show it

W. Weddige, Esq. in operation, as, for instance, to a steam-engine, the boiler might be wanting, and not included in the patent.
 27th May 1851.

2173. Provided he has made the machine, you are satisfied ?

Yes, we regard it as being very difficult to bring a thing quickly into operation.

2174. Still the principle of the law is, that he should not take out a patent to keep it to himself, but that he should immediately make it as useful as possible to the public ?

Yes, that is the principle of the law.

2175. Supposing he does not fulfil that condition, in what manner is it notified to the public that the patent does not exist ?

As soon as the patentee has received a patent, it is published by the "Prussian State Gazette;" is he losing his patent, a publication of the expiration takes immediately place, so that the public, by these means, is very soon made acquainted with the existing, or not existing, of a patent. A prolongation of a patent is also published.

2176. What means has an inventor in Prussia of ascertaining for himself whether his invention has previously existed or not; do you print your specifications ?

No; the specifications are all kept secret; there is a particular office where to put them; they are not allowed to be opened, unless they are wanted by the members of the Board. For such instances a memorandum is to be made on the side of the paper that it has been opened for this and this purpose; it is then sealed again, and sent to the office.

2177. Are you speaking of the specification before the patent is granted ?

After it is granted. It happens frequently that comparisons must be made, as it is impossible to the members of the Board to keep all inventions in their remembrance.

2178. Is there an index to those specifications ?

Yes, there is a general index for every year. The transactions of the Society for promoting useful Arts and Trade and Commerce, chiefly assisted by contributions of the Government, publish also, at the beginning of the year, all the patents that have been granted during the past year.

2179. Merely the title of the patent ?

Merely the title of the patent: we are obliged to publish it in the newspapers; therefore we wish to make the publication as short as possible, merely to direct the attention of the public to it, without in any way giving the means to ascertain in what the invention consists.

2180. Those specifications, the Committee understand you, are sealed up ?

Yes.

2181. At the end of 12 years, when the patent right has expired, what becomes of those specifications ?

They still remain sealed in the office. The French publish a description of the inventions after the patent has expired. We intended to do the same some years ago; but our lawyers have been of opinion that we had not the least right to do so.

2182. Inventions which at the end of 12 years have no longer patent rights, may be lost entirely to the public, may not they ?

As we have no right to publish it, we must leave it entirely to the patentee to inform the public of his invention by such means as he likes; but we regard ourselves as not able to give any assistance to the public to discover the secret.

2183. Therefore, one of your objects in granting patents is not to reward the inventor for discovering his secret to the public ?

No, it is not.

2184. Do you think it would be advisable to make any alteration in your law in this respect ?

I think we should be a little more liberal; it is very difficult to judge respecting novelty. I think an inventor loves his invention just as a father his child;

child ; he always thinks it is the best which exists ; therefore I think we should be a little more liberal in granting patents ; we intend so to do, in fact.

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2185. What proportion of applications are refused at present ?

There may be 400 or 500 applications made during the year ; perhaps there may not be more than 70 or 80 patents granted.

2186. Upon what grounds is the grant of a patent generally refused ?

That the invention is not new ; perhaps published, or in use before ; that it is not a real improvement.

2187. As the result of your practical experience, upon which of those grounds, generally speaking, do you find that patents are refused in Prussia ?

The most refusals take place in consequence of wanting novelty or improvement ; we do not regard it as an invention or improvement to mix, for instance, a very well known varnish, we will say, with a little rose-oil, if it does not belong to it ; we must, after our knowledge, suppose that the person who makes an application for a patent merely intends to infringe the right of another person who has already a patent upon this varnish ; we refuse the patent, and we do the same in all other similar cases. To judge about novelty or improvement, it is therefore a condition that the members of the Board shall have a scientific education, that they are supplied with all means for their instruction, and that they are very well acquainted at the same time with the practical performances of nearly every thing which belongs to arts, manufactures, trade and commerce.

2188. With regard to patents for further improvements, are they independent patents, or are they dependent upon the first ?

Sometimes they are independent ; sometimes dependent upon the first.

2189. How long has the present law been in operation ?

Since 1815. Formerly every inventor was obliged, after the receipt of a patent, to publish it through the newspapers, at his own expense ; it was not till the year 1836 or 1838 that that was altered. Since that time the inventor is not obliged to publish the advertisements himself, but the Government publish them. Formerly they were at very great expense in publication in different newspapers ; sometimes they had to raise 220 dollars, Prussian money, according to the number of newspapers in which it was published ; but at present the State Gazette in Berlin receives the advertisement from the Minister of Commerce and Trade, and is obliged to insert it ; the consequence is, that all the other newspapers follow this, and publish it in all the states.

2190. The inventor, in short, is put to no expense whatever ?

Nothing at all, except the stamp, the writing and the seal, which amounts altogether to two-and-a-half dollars.

2191. Are inventors generally able to draw the specifications themselves, or do they apply to professional persons to perform that task for them ?

They do it themselves, or with the assistance of some friends ; they are not professional persons or agents for such purposes in Berlin.

2192. Do you find that poor men, workmen for instance, who discover some useful invention, are always able to describe it themselves in such language as you consider sufficient ?

If they are not able to do it, they sometimes make application to the Minister of the Board of Trade and Commerce, or to the Under Secretary of the Minister of Trade and Commerce, telling him, " I am not able to give a description, or to make a drawing ;" in such instances sometimes a member of the Board receives an order to put it down.

2193. Supposing an invention is patented which turns out to be an old invention, how is the patent in such a case avoided ; is it by the decision of the Board, or by an independent court of law ?

In such instances, where it is not new, the members of the Board write to the Minister, and tell him, " We see that we have made a mistake ; you have granted a patent for this and this thing, but we now find out that it is described in such a place, or it has been executed anywhere."

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2194. There is no appeal from the Board except to the Board itself ?
Only to the Board itself.

2195. What is the process in the case of an infringement of a patent ; what happens if a manufacturer infringes the patent of another person ?

He goes at first to the Board of the police ; this Board sends an informed man, or some such persons, to the spot, for ascertaining the reality : is the infringement confirmed, the Board stops the work. About the amount of the damages, the parties are left to the decisions of the court of justice : are the parties not pleased with the judgments of the person or persons of the Police Board, it sometimes happens that members of the patent commission are ordered to examine, and to decide. The report is always directed to the Minister, who gives his declaration.

2196. There is no appeal from that ?

No appeal.

2197. Is the Board permanent, or do the members change from time to time ?

They do not change ; I have been for 25 years a member of the Board, and the other gentlemen are about 50 or 20 years members of the Board ; we sometimes introduce young scientific gentlemen, to qualify them, and give them information as to our mode of working ; to enter the Board as a member, it is wanted a trial of five years.

2198. If you consider the description of a machine insufficient, do you amend it ?

No ; it is sent back by the Minister to the party ; it is a general rule to deliver the specification in the German language ; it happens therefore, frequently, that we receive translations from France, or from England, so very bad translated, that it is impossible to understand the contents ; we therefore prefer to have annexed the original, which must be by all means correct, and having no interpretation ; is it not the case, we send it back. Models are not particularly requested, as it is, in many instances, the case in the United States of America ; we leave the choice of the means for our instruction entirely to the parties, and are, indeed, in this respect very liberal.

2199. Do you require drawings ?

Yes ; but only as many as are wanted for understanding the invention ; frequently we are satisfied with an intelligible description, as it is the case with a chemical invention.

2200. Do you ever require models ?

Not if the drawing is sufficient.

2201. Are there any complaints among the public, or among inventors, respecting the present state of the law ?

Yes ; they are complaining that we are too strict.

2202. Too strict against inventors ?

Yes.

2203. The complaint is on the part of inventors ?

Yes.

2204. Have you any complaint from the public on the other side ?

I do not know that we have ; I am not aware that the public has made any complaint.

2205. You have no complaint that, by the operation of this law, you promote monopolies ?

No.

2206. Have you ever had any application for the publication of the specifications after the expiration of the patent rights ?

No.

2207. Have you found that your law has in any way impeded the advance of your manufactures ?

No ; I do not know that it has.

2208. Do you think that it has in any way promoted the advance of your manufactures ?

I do not think it has done so : as I mentioned before, I rather wish to see it altered

altered in such a manner that we might be enabled to promote more patents, as it is at present the case. The Board has some years ago proposed an alteration of the present system, by which we would have gained more liberty in judging about the novelty or improvement of an invention; at present we look more on the principle upon which the invention is relating than upon the means to perform it; nevertheless, the combination of different parts had a great influence upon it.

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2209. You are rather inclined to extend the law in favour of discoverers?

Yes.

2210. Are there in Prussia many infringements of the patent rights of patentees?

Very few.

2211. It seldom happens that another manufacturer invades the right of a patentee?

Very seldom; generally they prefer to get the permission of the patentee.

2212. Is the whole question, then, of infringement entrusted to the police, and not to the courts of law?

If they are not satisfied with the decision of the Board of Police, they may go to the Minister, who gives the last declaration. The court of law decides only about the amount of damages to be paid.

2213. The decision as to the infringement is entirely an affair of the police?

Yes, only the discovery of the infringement.

2214. The police report to the Minister of Trade and Commerce?

Yes, if the parties are not satisfied with the decision of the police.

2215. The parties, if the decision of the police does not satisfy them, apply to the Board of Trade?

No, not to the Board direct, but to the Minister, who requires the opinion of the Board.

2216. The Minister of the Board of Trade decides, and his decision is final?

Yes, as to the fact.

2217. Then the amount of damage which is done is ascertained by a court of law?

Yes, in the courts of justice.

2218. What are the courts of law which decide it; are they courts which have juries attached to them?

Yes, since the constitution is granted; formerly only by the members of the court of justice.

2219. It is not merely an application to a person corresponding to a *juge de pays*?

No.

2220. But to a kind of municipal council?

Yes.

2221. Does it ever happen that a court of law, in adjudging the damages done, comes to the conclusion that the damages are nothing, or very trifling, in consequence of being of a different opinion from the Board of Trade as to the invention being an old one?

No, I do not remember any case of the kind. It is very seldom that they go so far. If the Board of Trade declares that it is an infringement, they are much more inclined to settle the affair between themselves, without going to a court of law.

2222. Does the Minister of the Board of Trade always decide according to the report of the Board of Examiners?

Yes, he always does; but only when he is convinced by the reasons which we are obliged to give.

2223. The Minister always decides according to the report of the Board?

Yes; but it sometimes happens that he is not of the same opinion; but before

W. Weddige, Esq. he decides to the contrary, he writes back to the Board. The Board submits the case to a revision, and reports the result.

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2224. He refers the application back again to them?

Yes.

2225. What are the considerations which lead you to wish that patents should be granted with more freedom and facility than at present?

I think they contribute to the diffusion of other discoveries; sometimes the invention of an inventor is completely lost in consequence of our judgment; the application of a wheel more, or a wheel less, which we regard at present as not altering the invention, does not alter perhaps the principle of the invention, but contributes to the improvement of the invention, has therefore a great influence, directs the attention of the public upon the improvement, encourages the inventor, and can perhaps contribute to the general profit of the country.

2226. Are the Committee to understand, that granting patent rights with greater facility would in your judgment increase the number of inventions?

I should think so; I would not say that we should go as far as you go in England, and promote patents for every invention without an examination. I think an examination is by all means wanted, at least to secure the inventor against infringements, which he can do perhaps to other persons, in consequence of not knowing what has been done in the same case. In Austria, the time of the patent right, as well as the expenses of the same, must be also considered; they begin with granting a patent for one year; after the expiration, the inventor can apply for more time. The expense is always regulated according to the time; so that the inventor is enabled to make experience, to introduce improvements, and to settle at least the time of his patent, without great expense, as the charges are very trifling.

2227. You stated that you thought it was desirable to give greater facility for obtaining patents in Prussia; what additional facilities would you propose to give?

Only that the examiners should not be quite so strict as they are at present.

2228. Do you think it would be desirable to introduce any other alteration in the present system?

No; the law is very short and simple, that a patent shall be granted to every one who makes a new discovery, or an improvement of an existing one.

2229. Would a patent be granted supposing an invention were an infringement upon a prior patent, but contained a new combination or application of the same principles?

If it is not an infringement of the former patent.

2230. Supposing all the portions of a new invention were already patented in a former patent, but were combined in a different manner, they would be patentable, would they?

Yes; this combination of old and new things may produce a new result, and we should grant a patent for it.

2231. If the applicant for a patent were obliged to make use of a process in his improvement which was already the subject of a patent, would he be able to use that patented process without a license?

He would not.

2232. Would a patent be granted in such a case?

No.

2233. He would only get a patent for the further improvement?

For the further improvement only.

2234. Practically, in Prussia, a person inventing an addition to an already patented invention would only get a patent for the addition; but he would most likely be always able to obtain a license from the original patentee to use that portion of it which was covered by his own patent?

Yes; he would generally get a license, I think; I do not at present remember a case which has happened; but I do not think there would be any difficulty in his getting a license.

2235. Does not it sometimes happen, that the original patentee, making a considerable

considerable profit upon his imperfect invention, refuses a license to the improver of the invention? *W. Weddinger, Esq.*

I do not know any instance of that.

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2236. Will you be so good as to state, as far as your knowledge extends, what the law of patents is in Northern and Central Germany?

I am not so acquainted with the particulars of the laws of the named countries; as much as I know, they are not differing from ours.

2237. Has any attempt been made to introduce a patent law into the Zollverein?

Yes, there have been several attempts; and I believe if the most unhappy year 1848 had not occurred, such a law would have existed now.

2238. Would it require that there should be an alteration of the law in the different small states which compose the Zollverein?

I think not.

2239. There is no such great dissimilarity between the laws of the different states generally as, in your opinion, to make it difficult to form one law for the whole?

No; in many instances they are more liberal in granting patents than we are; so that it sometimes happens that parties have taken out patents in Saxony or Bavaria or Wurtemberg, but have been refused making their application in Prussia.

2240. Is it the practice of inventors in Germany, generally speaking, to take out patents in all the different states?

Yes, some years ago; at present the application can be made in Berlin, and is communicated by the Minister to the other states.

2241. Is compensation for the infringement of a patent as easily obtained in the other states as in Prussia?

As far as I know, yes.

2242. What is the greatest amount of compensation or of damages which you have ever known awarded for the infringement of a patent?

Such a case has so seldom happened, that I cannot state; the cases which have occurred have been where the invention has not been of much value.

2243. Is the compensation awarded by the courts of law, generally speaking, a money compensation, or is there, in addition to that, an injunction restraining the person who has infringed the patent from continuing to do so?

It is a money compensation only.

2244. Which would be repeated probably if the party persisted in using the invention?

Yes.

2245. Is the law which you just now mentioned common to all the States, namely, that the use and publication of an invention abroad prevents the Board of Inquiry granting a patent for it?

Yes. The Board at Berlin is assisted to its information with an extensive and most complete library, with a large collection of different models, drawings and patterns, and each member is obliged to use these means, and to ascertain whether they contain something connected with the subject about which an application for a patent has been made; as much as I know, the same means as procured to the members of the Austrian Board, as well as in other states in Germany. The library and the collection of models in Berlin are open to the public on some days of the week. In the United States of America the same thing exists; the specifications of patents, drawings and models of inventions, are here at the same time exhibited, so that every one is enabled to make himself acquainted with patented inventions or improvements.

2246. Do you find the same facilities to exist in this country?

I never tried it here.

2247. You think it is very desirable that there should be a record kept in some official document of the patents which have been granted containing the specifications and details of the inventions?

(77. 11.)

P P 4

. Yes,

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Yes, it would be very useful. The French publish their specifications; but they come out rather too late.

2248. Do you think that the absence of any such publication is a great defect in any patent law?

I think it is a defect.

2249. What do you mean by saying that the French publish their specifications too late?

They publish them after the expiration of the patent.

2250. Should you think it more expedient that the publication should take place at the time of granting the patent?

I should think so; then every one will be acquainted with the object of it, and he will at once know whether it will be useful to him, or whether he can be conducted by it to new inventions.

2251. Do you wish this publication to be simply for the use of the Patent Commission, or for the use of all the world?

I should think for the whole world.

2252. How is that consistent with your principle in Prussia of locking up all the specifications, and keeping them secret?

It would be quite impossible at present to publish them. I understood the question to refer to what I would do if I could alter the present law; I think, in that case, I should be rather disposed to recommend them to make such a publication as soon as the patent is granted.

2253. As a matter of opinion, you do not admire the system adopted in Prussia, of keeping under seal all the specifications?

I do not. My judgment was just the same many years ago; and, in consequence of that judgment, I intended to try to get them published; but our lawyers have been of opinion that we have no right to do so.

2254. May not there be a feeling in Prussia that, as the law does not extend now to the neighbouring countries, there is more danger of inventors' rights being infringed, than would exist if the case were otherwise?

It is the feeling; they wish it to be extended over the whole of Germany.

2255. What is it that is published in the States Gazette?

Only the object of the invention, the title only.

2256. Would you think it expedient, in addition to the mere publication of the title, that there should also be a publication of the specification, and the details of the invention?

In many instances I believe it would be very difficult to do it; in some instances it would be exceedingly easy if you printed drawings; a description would very imperfectly convey the meaning. I think it should be done by the government; by that means you would enable the public to judge clearly. In France they make it in many instances so very short, that even an intelligent or experienced man finds it difficult to ascertain for what purpose the patent is granted.

2257. Do you consider the practice pursued in America to be the one which it is most expedient to adopt?

I think it is a very good one; the Austrian system is nearly the same.

2258. At the period of granting the patent, is there any publication in Austria of the specification and the details?

Yes.

The Witness is directed to withdraw.

Lieutenant.

*Lieut.-Col. Reid.*27th May 1851.

Lieutenant-Colonel REID is called in, and examined as follows

2259. ARE you Lieutenant-Colonel of the Royal Engineers?

I am.

2260. I believe you have served also in the colonies?

Yes, for about 10 years.

2261. As Governor of what colony?

Of Bermuda about eight years, and two years of the Windward Islands.

2262. At present you are Chairman of the Executive Committee of the Exhibition?

I am.

2263. Are you the author of any scientific work?

A work on the Law of Storms.

2264. Do you generally agree with the opinions of a member of your committee, Mr. Cole, as to the expediency of cheapening and facilitating the granting of patents to the greatest extent?

A year ago I took very much the same view as he did, and feeling an interest in the subject, from hearing the patent laws discussed, and having a desire to inform myself upon the subject, and being convinced that the laws, as they at present stand, are very bad, I read what fell in my way upon the subject; I also endeavoured to obtain a knowledge as to the patent laws of the United States. Among other persons, I wrote to my correspondent, Mr. Redfield, with whom I have been in communication for many years, begging him to send me the laws of the United States, and anything he could upon this subject.

2265. Who is Mr. Redfield?

Mr. Redfield is a gentleman of much knowledge of mechanics, who was appointed many years ago agent to the Hudson's River Steam Company, from his knowledge of steam machinery; he has devoted nearly all his life to mechanical subjects. I have been many years in communication with him on the subject of the law of storms. When I began to read on the subject of the patent laws a year ago, I was of opinion that cheap patents would be a great improvement; but in the course of my reading I came to an opposite conclusion. I was very much struck on receiving Mr. Redfield's replies, with the information which I asked him for, when, without my having stated to him my own opinion on the subject, I found we precisely agreed. He thought the principle of granting patents a great evil to the State; and that though public opinion is at present very much in favour of granting patents, the time would come when a contrary opinion would prevail, and there would be no patents.

2266. Your opinion is against the granting of all patents?

That is my opinion. I think the time is not come now, but that the time will come when the sentiment will generally prevail. From reading attentively, particularly the Report of the Committee of the House of Commons in 1829, which is nearly all in favour of the present views as to the expediency of cheap patents, I confess I came to a diametrically opposite view to most of the evidence given there. I was very much struck at finding that Mr. Redfield, who is a man of high reputation in the United States, entirely coincides with the opinion I had formed in the interval between writing to him and receiving his answer.

2267. In his letter to you did he state his reasons for forming the opinion which you say he entertains?

Not in detail; his statements were very short; I have mislaid them, but I will look for them. I shall be happy to forward them to your Lordships if I find them.

2268. Have you paid any attention to the subject of whether, supposing the existing patent law to continue in its present or an amended state, it would be desirable that patents taken out for the United Kingdom should extend to the colonies?

On that subject I naturally thought a great deal. My opinion is, that it would

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be well to leave it to the colonial legislatures to adopt any improved patent law or not, or to modify it, as they may think best suits the colonies which they belong to.

2269. Are they subjected to any inconvenience at present in consequence of the law of patents extending to them?

Yes, I think they are. I may take, as an example, the centrifugal machine lately used in the sugar manufacture. The planters in the West Indies are obliged to pay a royalty of sixpence a hundred weight upon all sugar which is made, besides paying for the patent. Colonies of foreign countries which may have no patent laws, by importing those machines from the United States, would have a great advantage in competing with us. If Barbadoes, or any of our West Indian colonies, were unshackled by the patent laws passed in this country, they would be able more cheaply to import this machine, and compete with the more advantage with slave islands. I would, therefore, recommend; that any patent law now to be passed, should not extend to the colonies; but that the colonies should be all left to adopt any system enacted for the United Kingdom, or to modify it, or to have no patent law, as they might think best suited to themselves.

2270. Should you have any objection to deliver in to the Committee Mr. Redfield's letter, if you find it among your papers?

Not if I find it. I have with me the patent laws of the United States, up to the present time. When I applied to Mr. Redfield, I applied also to Mr. Abbott Lawrence, who was good enough to procure for me the present law of the United States—[*The Witness delivers in the same.*—] I have also a list of patents granted in the United States in every year from the year 1790 down to the year 1849.

The Witness delivers in the same, which is as follows :

“ NUMBER of PATENTS issued from the UNITED STATES' PATENT OFFICE,
in each Year from 1790 to 1850.

1790	-	-	-	1	1820	-	-	-	159
1791	-	-	-	31	1821	-	-	-	167
1792	-	-	-	11	1822	-	-	-	203
1793	-	-	-	21	1823	-	-	-	117
1794	-	-	-	21	1824	-	-	-	224
1795	-	-	-	13	1825	-	-	-	300
1796	-	-	-	41	1826	-	-	-	327
1797	-	-	-	51	1827	-	-	-	334
1798	-	-	-	29	1828	-	-	-	366
1799	-	-	-	44	1829	-	-	-	439
1800	-	-	-	39	1830	-	-	-	551
1801	-	-	-	46	1831	-	-	-	575
1802	-	-	-	64	1832	-	-	-	473
1803	-	-	-	94	1833	-	-	-	579
1804	-	-	-	83	1834	-	-	-	608
1805	-	-	-	54	1835	-	-	-	746
1806	-	-	-	64	1836	-	-	-	677
1807	-	-	-	98	1837	-	-	-	429
1808	-	-	-	160	1838	-	-	-	509
1809	-	-	-	199	1839	-	-	-	410
1810	-	-	-	222	1840	-	-	-	452
1811	-	-	-	218	1841	-	-	-	494
1812	-	-	-	245	1842	-	-	-	517
1813	-	-	-	167	1843	-	-	-	553
1814	-	-	-	206	1844	-	-	-	502
1815	-	-	-	178	1845	-	-	-	502
1816	-	-	-	209	1846	-	-	-	619
1817	-	-	-	173	1847	-	-	-	572
1818	-	-	-	227	1848	-	-	-	660
1819	-	-	-	157	1849	-	-	-	1,076
				3146					

2271. Holding the opinions you have stated to the Committee, you probably think

think it is not desirable to grant patents to those persons who merely import inventions which are in use, and published abroad ?

Lieut.-Col. Reid.

That would be in accordance with the opinion I hold. I would not grant patents in this country for inventions published abroad.

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2272. Have you looked at the Bills which have been referred to this Committee ?

No, I have not seen them.

2273. Will you be so good as to state what are the principal reasons which influence you in stating that you think patents are not for the public advantage ?

I think, in the present advanced state of our mechanical knowledge, and considering that there are always many men thinking of the same thing at the same time in a community such as ours, a man who is active enough to obtain an exclusive right to a patent unfairly, shuts out the others. I think, taking a general view of the whole subject, the interest of the country would be more advanced by leaving the ingenuity of the country entirely unshackled.

2274. Do you think that the prospect of obtaining a patent has nothing to do with promoting invention ?

I very much doubt it.

2275. Do not you suppose that the hope of obtaining the exclusive enjoyment of the profits of the invention is an inducement to those who are prosecuting discovery ?

I am inclined to think that active minds would work with equal energy without that prospect.

2276. Have you any knowledge of the classes from whom inventions commonly proceed in this country ?

No ; I have not been in the way of knowing anything in detail of the working of patents ; my ideas on the subject are general opinions.

2277. Supposing it to be the case that in this country the great majority of inventions are known to proceed from persons who are without the means of bringing them into use, should not you say that the acquisition of a patent right would give to such persons the means of obtaining better terms from men of capital ?

It may, no doubt, in some instances, do so ; perhaps in many instances ; but I am only prepared to speak of the general impression upon my mind, formed by an attentive perusal of what has come in my way ; I think that in the present state of our nation, and with our mechanical knowledge, the country would advance best without a patent system.

2278. You speak of mechanical inventions ; do you suppose that the effect would be the same in the case of chemical invention ?

That is a much more difficult subject ; I have not thought so much of it.

2279. Have you ever considered the probable effect of an entire abolition of the system of patents as respects the communication of inventions to the public ; would it not tend to encourage mystery and concealment more than the present system does ?

I believe the present system of publication is very imperfect ; the specifications are not all published ; but there might be a great advantage in having them published.

2280. Supposing the law were so modified as to make the acquisition of a patent easy and simple, and to provide for the publication at the earliest possible period, do not you think there would be more inducement to the disclosure of the secret under such a system than if all privileges of the kind were abolished ?

I am inclined to think that the advance in improvement in all our arts would be greater by leaving them entirely unshackled.

2281. Do you think, as respects the greater proportion of inventions, it is possible to keep them secret if they are used at all ?

It must be very difficult, indeed ; it is more easy in chemical inventions.

2282. Your views upon the subject of the patent laws are founded not so much upon tracing the effects, or the supposed effects, of the patent laws in particular

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ticular cases, as upon general considerations with regard to the principles of the human mind, and of the present existing condition of society?

Exactly so.

2283. You look upon the present condition of society as one eminently of a competitive character?

Certainly.

2284. And you think that that competitive character affords a sufficient security for fertility of invention?

Entirely so.

2285. You think that patent rights would not materially augment our security for fertility of invention, but would materially impede the free agency of that inventive tendency, by raising various obstructions through the exclusive rights?

I think persons in trade and manufacture would embarrass each other by the number of existing rights; it was impossible for me, in reading upon the subject, not to feel that there must be greatly increased litigation by the multiplication of patents.

2286. Might not that be obviated in some measure by other regulations, such, for instance, as a more open and correct registration of specifications?

No doubt that might mitigate the evil, but not remove it.

2287. Is not the infringement of a patent very often accompanied with full knowledge on the part of the person so infringing it?

It is.

2288. Your attention has been drawn to the distinction between mechanical inventions and scientific inventions, especially chemical inventions; is not it the fact that by far the most important chemical discoveries have been made without patent rights being obtained for them?

I am not sufficiently acquainted with the subject to say.

2289. Do not you think that the principal mechanical improvements now being made in the present state of mechanical invention consist rather in minute details, or in the skilful application of the details of machinery, rather than in great new inventions?

I believe that is the case; a great number of men, particularly poorer mechanics, occupy themselves over what they conceive to be new inventions, which have been tried many times over before; they lose their time upon them in the hopes of coming to great gain.

2290. Do you see any security against their doing that, after the abolition of the existing patent system?

At present the hope of a patent gives them a false stimulus, and excites them to spend their time in seeking to make inventions, but I do not think the country benefits from it. I think that by throwing the whole free, the general result to the country would be benefit, rather than otherwise.

2291. Supposing the whole system of patents were abolished, would there be less inducement to a mechanic to spend his time in pursuing useless inventions than there is now; would he have greater means of ascertaining whether an invention had been tried and exploded?

I am unable to say.

2292. Would not one advantage be, that, instead of working in secret in his own room, he would have no reason for not consulting those who know more upon the subject than himself?

He would work then openly.

2293. Are not there two forms of invention which may arise from an ordinary mechanic, one the endeavouring to facilitate his own daily process by some more clever adaptation of the machines he is actually using, and the other by directing his mind to some supposed new and great discovery?

No doubt that is so.

2294. Is not the former form of invention the one most desirable to encourage, and from which there is the most reasonable ground to anticipate useful practical

practical results, while the latter is a form of discovery upon which a mechanic in all probability will spend his time unprofitably?

Yes.

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2295. Is not the tendency of the patent laws to distract the mechanic's attention from the true field of invention, and direct it more exclusively to the less desirable one?

I think it is. I have not had an opportunity to think very much upon patent subjects. I have never been engaged myself in a patent. It was only from hearing the subject so much discussed last year, and taking a natural interest in the subject, that I was induced to read the papers which I have collected, and to send to the United States. That which struck me most of all, was finding a person of the ability of Mr. Redfield coming to the same conclusion which I have done, and that opinion being at variance with the prevailing opinion of the public, both here and in the United States.

2296. I understand you to say, that you were led to your present conclusions by an attentive study of the evidence taken before the Committee of the House of Commons in the year 1829?

Yes. I have had no practical knowledge myself of the working of patents.

2297. What were the circumstances which struck you most in that evidence as tending to show the inexpediency of the present patent system?

I think I can only express myself in general terms, that, after reading attentively the whole Report, I was not convinced by the arguments which the advocates for the patent laws put forward. I certainly began reading with a conviction favourable to cheap patents; but before I read to the end of that volume, I had come to an opposite conclusion.

2298. Did not reading that evidence strongly impress your mind with the multiplicity, the extent, and the unavoidable character of the various difficulties and inconveniences which attend the existing patent laws?

There is no doubt of that.

2299. Did not it also impress you with the conviction of the impossibility of making any effectual struggle towards overcoming those difficulties?

I think so.

2300. Was not the result which you came to derived from the fact of having your mind, by that evidence, directed to these two considerations, namely, the undoubted extent of the existing evil connected with the patent laws, and the apparent impossibility, so far as you can see, of remedying that evil?

Yes, I came to the conclusion that it would be better to have no patent rights whatever.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Friday next,
Twelve o'clock.

Die Veneris, 30^o Maii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

R. Prosser, Esq.

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RICHARD PROSSER, Esquire, is called in, and examined as follows :

2301. WILL you be so good as to state what your occupation is ?

I am a civil engineer in Birmingham.

2302. In that capacity, have you had your attention called to the law of patents ?

Very much.

2303. Have you been an inventor yourself ?

I have.

2304. Have you taken out patents ?

About 20, I think.

2305. Do you act also as a patent agent ?

I do not.

2306. Will you state generally to the Committee what is your experience of the way in which the patent law at present works ?

The expense of taking out a patent appears to me to be very much too large.

2307. Is that the only objection to the present system ?

A greater objection than that is that you do not know what has been patented ; there is no list, and no record of what has been patented already.

2308. Do you see any objection to all specifications being printed, and indices to them arranged and published ?

Every specification ought to be printed. In my opinion, when you apply for a patent, you ought to go with your specification, which is the case in every country except England.

2309. And you think that the specification should be made public at the time of the application ?

I think that it should be printed and made public as soon as possible.

2310. Are the Committee to understand that you are one of those who think there should be no previous examination before a patent is granted ?

None whatever ; it has never been productive of any good except in creating fees ; a patent should be granted at once, and there should be a more simple mode of repealing it if it were found to be for an old invention.

2311. How would you effect that ?

By some mode more simple than a *scire facias*. I think a man should have a patent for what he pleases ; but that the next day it should be repealed, if the invention is shown to be old.

2312. Do not you think it a hardship upon other inventors, or upon the public, that they should have to defend, in a court of law, that which they have been constantly using for a series of years ?

Yes, it does seem a hardship ; but such a patent could not stand. If the public had previously used the invention, the patent could not be upheld.

(77. 12.)

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2313. Would

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2313. Would not it be the case if a patent could be obtained very cheaply, and without any previous examination, that a great many would be immediately taken out possibly for useless and worthless inventions?

No patents can be obtained without expense and trouble; they are very costly; it is not the mere expense of the fees, but expensive experiments are obliged to be resorted to before a patent can be applied for.

2314. The danger to which I now allude is, that which would arise from a person having great facility given to him by registering his invention for obtaining a patent for that which would turn out to be neither novel nor useful?

I do not see how the novelty or utility can be ascertained till it is tried at law; that appears to be the proper mode of deciding such points.

2315. Would not it be a hardship upon the public generally to be constantly dragged into courts of law in consequence of the simple act of a person choosing to register that as a novel invention which is really not so?

I do not think it is a hardship upon the public. The patentee would have to pay the expense of it; that appears to me to be the only way of settling the right; I know of no other. I do not think that any previous examination which might be instituted could settle it.

2316. Do not you think that such a power would be used as the means of extortion; with the feeling that exists in this country against going into courts of law, might not any person who had a patent registered be enabled, by the threat of litigation, to drive parties whom he accused of having infringed that patent into a compromise with him?

I do not think any one would resort to a patent for the sake of going to law about it; a great number of the patents which are now taken out are taken out in sheer ignorance; patents are taken out perhaps for 20 things which are, in fact, entirely the same, and probably by the same patent agent.

2317. You think that there would arise no inconvenience to the public from a great multiplicity of patent rights upon every possible subject?

I do not think there would; one patent supersedes another.

2318. Do not you think one result would be that manufacturers would be afraid of making any improvement whatever for fear of infringing some patent or other?

I do not think so; one patent is superseded by another; I have taken out patents myself to supersede my own patents; if an inventor does not do that, some one else will. I suppose there have been a thousand patents taken out for improvements in steam-engines; but that has done no harm to the steam-engine of Watt. So far as my own experience goes, I do not think there is more than one per cent. of the existing patents which are worth anything.

2319. If that be the case with respect to the patents which are now taken out, do not you think that giving greater facility for taking out patents would be opening the door further to the multiplication of useless patents, which are taken out, as you say, from sheer ignorance?

I think if proper indices to the specifications were published, they would not be so taken out; at present, the patent agent takes the fees, and he will patent whatever you please; there is where I think the evil lies. If you go to the patent agent, he does not tell you that your invention has already been made the subject of a patent before, because he knows if he does, you will go to some other patent agent, and he will lose his fees; when they can get 10 guineas for every patent they pass, merely employing a boy of 12 or 14 years of age to go to the different offices, it is a very lucrative matter.

2320. Would not the evil be increased by the system you propose?

I do not think it would be increased, if the specifications, past and future, were printed.

2321. You rely upon a more full publication of the specifications as a protection against the evil to arise from taking out useless patents?

Entirely so.

2322. Is not it often a very doubtful question whether a previous specification really

really covers an invention for which an inventor may seek a patent at a subsequent period?

Yes; and I think that is a question for a court of law; that is why I object to examiners; I think it is only a court of law which can settle that question; the only country in which they have examiners is America, and there the system works as badly as a system can possibly work.

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2323. Do you know anything of the working of the patent law in America?

Yes; I have an American specification here, which I received by the last mail.

2324. Have you any personal knowledge on the subject?

I have never been in America myself, but I have a brother residing there, and I have heard a great deal of it through him.

2325. What are the principal objections to the system in America?

Your invention is referred to a certain examiner, who refers to published books for the purpose of seeing whether that invention is old or not; he has no practical knowledge whatever; he finds something which he thinks looks like it, and he gives you a list of those things, but upon reference to them, you find they are not of the slightest use to you, and do not apply to your invention at all. The delay is much greater in America than it is in England; you are kept six or twelve months in obtaining a patent there; you have a right of appeal from the commissioner to the chief justice of the district court of the United States, for the district of Columbia.

2326. Do many questions of infringement arise in America?

A great many; but I never heard anyone object to the expense of law proceedings in America. The Americans publish a list of all patents which are taken out, but they only publish the claims of the specifications. The French publish the specifications, and so do the Austrians, and I have those works here, but the English publish nothing whatever. In other countries parties can know whether or not a patent has been taken out for a certain invention, but there is no means of knowing that here.

2327. In whatever part of the United States an infringement may have taken place, the case must be tried at Washington, must it not?

Actions may be tried anywhere, but appeals must be tried at the district court at Washington.

2328. Therefore it is necessary, for the trial of a case, to resort to Washington?

Yes, on appeal, if you are dissatisfied with the commissioner.

2329. Is not that attended with a good deal of trouble and inconvenience?

It is, but the law charges in America are very light.

2330. Without undervaluing the benefit to be derived from printing the specifications, is not it the fact that parties who are disposed to spend money in advertisements, would find that it would be a cheap mode of advertising for them to obtain a patent for any article, not intending to protect themselves from an infringement of it, but merely to make that article known?

I think that is very much the case now.

2331. Do you think that a desirable state of things?

I do not.

2332. Would not it be increased under a system which rendered it more easy to obtain patents?

I think not; if the specifications were printed, the public would have the means of going to the documents themselves, and judging for themselves. I received yesterday a letter which bears upon that subject. The house of Morrison are infringing a patent. An attorney waits upon them. They want to see the specification, to ascertain, as they say, whether they are infringing it or not. If those things were published, they would not want to ask an attorney for a copy of that which they might find to be of no use to them. The public are in the greatest ignorance upon the subject of patents.

2333. With the extraordinary facilities you propose to give for obtaining patents, might not inventors find themselves embarrassed by the great number of patent rights which would be then in existence?

I do not think they would; I think, on the contrary, that it would give rise

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to a class of men which now does not exist, and that is the class of legitimate inventors, persons who would invent for the sake of being paid for anything which they were employed to invent.

2334. Are the services of a patent agent now absolutely necessary ?
 They are.

2335. Are they expensive ?
 Very expensive.

2336. According to the plan you propose, the services of a patent agent might be altogether dispensed with ?

Yes, I think that very desirable for the sake of promoting morality ; and the patentee should have the power to send his money and papers through the post-office, as in America and France.

2337. Are there many instances in which poor inventors, who may make inventions of some value, are able to draw up the specifications which are required, in order to obtain a patent ?

I think every inventor would be able to draw up the first specification, but he would not be able to put it into technical language ; no man can make an invention who cannot draw up an account of it. If a man makes an invention now, he goes to the patent agent ; if he gives him a description by word of mouth, that is not enough, he should put it down on paper.

2338. You think a full specification should be given in at the time of petitioning for the patent ?

I think so. I do not think it desirable that crude specifications should be given in upon an application for a patent ; I think they should be put into a proper shape, and that some officer should judge of them as to form.

2339. You have stated that there is now no class of inventors existing as inventors ?

No.

2340. Who generally make the inventions which are patented ?

The majority are men who think they have an inventive turn, and when they have ruined themselves, they find out they have not ; there are very few men who take out a patent twice.

2341. Is there not a considerable expense and loss of time and money incurred in the preparation for taking out a patent ?

No doubt there is.

2342. Are not their efforts owing to the stimulus they now feel from expecting to get a large reward from their labours, if they obtain a patent ?

It may be so ; but I think it is more in the mind of the individual ; I do not think some parties can help inventing.

2343. Would not that stimulus be more strongly felt if patents were made so cheap that any one could obtain them ?

I think it would. We have many men who are qualified to become real inventors. I know 50 people who would make valuable inventions if they thought they should receive any advantage from them.

2344. Do you think the present system is better or worse than a system under which there should be no patent protection at all ?

I think the system under which no patents should be granted would be very desirable, except that in that case we should lose all record of inventions after they have been made ; a record of failures is as important as a record of successes.

2345. Do you imagine that there are many cases in which an inventor would keep his invention entirely to himself ?

Not if he could sell it.

2346. Would not the absence of patent law present a great impediment to his being able to sell it ?

Yes, and there are other disadvantages ; we should know nothing of the literature of inventions, and we know quite little enough on that subject already.

2347. You think the law of patents, however administered, is more valuable
 as

as a statistical record, and as a means of obtaining statistical information, than from any influence it has upon the production of invention?

I think so. If there were a record which a person could go to, he would be able to see that the thing for which he desired a patent had been done before. Professor Woodcroft has prepared a very valuable set of indices. Now, in numberless instances, the time of a man is spent upon things which have been done 20 or 30 times before.

2348. In the event of a total abolition of the patent laws, what would become of that class of men whom you have recently alluded to as desirable to be encouraged, namely, the class of legitimate inventors, as you called them?

I think they would receive a remuneration by means of agreements.

2349. You think they would secure the advantage of their inventions to themselves, by keeping them secret?

Yes.

2350. Then, in your opinion, one of the advantages of the patent laws is that they lead to the publication of valuable secrets?

Yes, that is the only advantage which I can see in them, that they afford a permanent record of what has been done; I do not think they tend much to the encouragement of invention.

2351. Do you consider that the fact of there being no provision in the present law for having the specifications properly printed and arranged has been a source of disadvantage to inventors, and to the public at large?

It has been a great curse, and a source of ruin to hundreds.

2352. What do you think has been the result of the present system in the case of valuable inventions; have those parties who have made them derived profit from them, or the contrary?

I think they have not been remunerated by them.

2353. Is not it the case that a useful invention is generally subjected to litigation?

Always when it becomes profitable, never till then.

2354. Do you think that it has proceeded from any defect in the law, that inventors have been ruined in the way you describe?

I do not think it is from any defect in the law; there is the same law for the patentee as for the person who loses his pocket-handkerchief; the great expenses arise from the heavy fees to counsel, and the number of witnesses you must have, and the expense of travelling long distances, together with the loss of time.

2355. Do you think that that is an evil which admits of any remedy?

Yes; the remedy would be, taking all questions respecting patent matters to the county courts; I cannot conceive why the merits of a Birmingham invention should be tried in London; I know that one practical inconvenience of the present system is, that parties have to find money to put their men into fine clothes, that they may appear respectable in the witness-box.

2356. You think that wherever the infringement of a patent takes place the action should be tried?

Yes; there was the case of the Coalbrookdale Company, which was recently tried at Birmingham under the Registration Act; I think the result of that trial gave satisfaction to everybody, except the infringer, of course.

2357. (To Mr. *Webster*.) Will you state whether patent cases can be tried at the assizes?

Yes, patent cases may be tried anywhere; an assize seldom takes place at Liverpool at which there are not some patent cases; there was one at the last Stafford assizes; it is found more convenient to have them tried in London, generally, because the first-class witnesses are generally London men.

2358. (To Mr. *Prosser*.) With regard to inventions which have been used and published abroad, do you think it is necessary or desirable to give a patent to a person who imports them into this country?

I think a patent should be granted without regard to where the invention has

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been used if it has not been used in England : that, I think, was the very origin of the patent laws, to introduce trades and manufactures into this country.

2359. Is that done in any other country in the world ?
 Yes.

2360. In which country ?

In America, in France, in Belgium, in Holland, and in Russia ; I do not know a country where it is not so ; I have a French patent and a Belgian patent myself, though not in my own name.

2361. Have you assigned those patents to other persons ?
 Yes.

2362. Were those inventions, for which patents have been taken out in those countries, inventions which had been used and published by you in England ?
 No.

2363. My former question, which you appear to have misunderstood, was whether you think that a patent ought to be granted to a person for the importation into this country of an invention which has already been used and published in a foreign country ?

Yes, I think so ; that was the origin of the law of this country, I think.

2364. Is that the law in other countries now ?

No, it is not ; that has not been the law in other countries ; if the invention has been published, it is fatal to the patent.

2365. You think that ours, which is an exceptional law in that respect, is a good law ?

Yes ; it was that which brought to us all our trades.

2366. Do you think that an invention would never reach this country unless there were a patent to protect it ?

I do not say that ; but it has been the state of our law on that subject which has brought us all our trades ; the origin of the law, I take to be, the desire to bring foreign trades to this country.

2367. Whatever may have been the origin of the law, do you consider that in this country, looking to the progress which manufactures have made, a manufacturer would not, unless somebody else had taken out a patent, and so got the power of taxing him for it, use a foreign invention which would enable him to produce more manufactures at a cheaper rate ?

I think not, because other manufacturers would begin to compete with him when he had been at all the expense and all the trouble of proving that it would succeed ; he would then have his workmen enticed away from him ; the first manufacturer would do it at a serious expense, which the second manufacturer would avoid.

2368. You think he would not use the foreign improvement, because, having educated his workmen to the use of that improvement, he would immediately incur the risk of having those workmen enticed away from him by his competitor ?

Yes, when he had succeeded.

2369. When a manufacturer has paid for a license to use an invention by the patentee, does not he run the risk, under that license, of educating workmen who may be enticed away from him by a second manufacturer who, at a later period, may pay for a similar license ?

No ; because it is generally a condition that he shall be the sole licensee ; there was a case reported in the " Times " yesterday to that effect.

2370. Do you mean to state that a patentee generally allows only one individual to take out a license for the use of his patent invention ?

In the majority of cases, that is so ; the person taking the license would not take it without that condition.

2371. By that means the patent becomes a still stricter monopoly than it would otherwise be ?

Yes.

2372. In

2372. In a case where a manufacturer in England has to compete with the manufacturers abroad, is not it the case that he would have a sufficient inducement to use a foreign invention, even though he might be competed with by the manufacturers of this country?

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If it were much cheaper it would be so; there is not much inducement for a manufacturer to take up any invention which may be made the subject of competition after he has been at the expense of proving whether it is worth it.

2373. Would not the proof of its value have been given in the foreign country?

No; it might succeed in a foreign country, and not here.

2374. Are not those parties in this country who use complicated and ingenious machinery very jealous of admitting foreigners to inspect that machinery?

They are always jealous of Englishmen, but never of foreigners.

2375. What particular branches of machinery are you most conversant with? Machinery for the Birmingham manufactures.

2376. You are not so conversant with the cotton machinery?

Practically, I know nothing whatever of it.

2377. Do not you think, that in the present active state of competition in this country, there is a sufficient inducement to a person to obtain every new and ingenious idea which he can receive from abroad and apply it in this country, without his having a temporary monopoly given to him in it?

I do not think so, for the reason which I have given, that it is always done at a great expense by the person who does it first, and others can get it at perhaps one-fifth of the expense.

2378. How is that consistent with the statement you made to the Committee, that you do not think there is any use in the patent laws in the way of encouraging invention?

I do not think they do encourage invention; I think they encourage a set of charlatans, who make money by selling things that they know are worth nothing, and imposing upon manufacturers.

2379. How is it that the manufacturers adopt their inventions?

They take out patents for mere advertisements. Many manufacturers who have patents do not use them at all except as advertisements.

2380. Are there any other observations which you wish to make, with reference to the two Bills which have been referred to the Committee?

I have not seen Lord Granville's Bill.

2381. Have you read Lord Brougham's Bill?

I have.

2382. You object to that part of it which requires a previous examination; are there any other objections which you feel to it?

No, I think not. I object to the examination, because I have paid great attention to the subject, and have never seen it productive of any good.

2383. What do you think would be the effect of periodical payments?

I think the effect would be, that after about the third year you would have none.

2384. That would be an advantage, you think?

It would be an advantage.

2385. Do you think the periodical payments at the times stated in the Bill, or annual payments would be best?

I think periodical payments, as stated in the Bill, would be best; I think the patentee would have to spend less money before he found out his error. I do not think the expense of a patent is an object at all, provided it comes out of profit. I only speak of it as a hardship when it comes out of that which is uncertain, and may never produce a penny.

2386. Will you be so good as to look at the 13th clause of the Bill (No. 2.), and state your opinion of it?

(77. 12.)

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That

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That would keep many an honest inventor out of the hands of the person from whom he is obliged to borrow money under the present law.

2387. Do you think that a patent ought to extend to the three kingdoms?
 I think so.

2388. Should a patent extend to the colonies?

I do not see how it can extend to the colonies; they have legislatures of their own, and in our North American colonies the patentee must be an inhabitant.

2389. Can you state what are the consequences of the delay which takes place under the present system in obtaining a patent?

The consequences of the delay are, that the first and original inventor is often superseded; another person gets his patent before the original inventor gets it.

2390. That is, of course, a defect belonging to the caveat system?

Yes, it attaches entirely to that, in my opinion.

2391. You consider that a very injurious system, do not you?

I consider it very unjust. The only notice by the caveat system is to those who pay the fees. There is a very large number of patents granted in this country, about 14,000, and there is no inquiry into them; the inquiry is only into those which pay the fees; the inquiry is in fact a farce.

2392. Do not you think if there were certain scientific persons appointed to assist the Attorney-general, they would soon make it their business to ascertain what had been done in the way of invention on any particular subject?

I do not think they would be of the slightest use, but only a hindrance. If inventions are, as they are of necessity, in advance of the times, I do not see how any one can judge of them till they are brought into operation; an invention can only be judged of by its results.

2393. You would have no previous inquiry in order to prevent patents for utterly useless inventions being granted?

No, I would grant a patent at once, and the next day I would repeal it, if it were found to be useless, and the public wished it.

2394. You would simply register his patent at an office to be appointed for the purpose?

That is all.

2395. It being proposed to date every patent from the day of the application for it, would not a judgment passed by the Attorney-general, assisted by scientific persons, upon the invention, be very much like the process which you would wish to see carried on in the county courts?

No; the Attorney-general never gives anything in the shape of a legal decision; he hears no evidence that I am aware of; he hears the parties separately, and that, I think, is very objectionable; if the Attorney or the Solicitor-general were to hear the parties in the presence of each other, I think the evils might be very much mitigated, but even then, the outlay and expense would be great evils.

2396. How would you propose to repeal the patent the next day, which you stated in some cases might be desirable?

By a process similar to a *scire facias*, but not so expensive.

2397. In the county court?

You could not do it in the county court; there must be a certain officer for that purpose; the Lord Chancellor, I apprehend, must do that.

2398. Then you do propose to resort to an inquiry for the purpose of determining the merits of the invention?

I do not think it is possible to decide the question except through a court of law; it is a question of the interference of one right with another, which a court of law must always decide.

2399. Who would pay the expenses of that appeal?

They must be paid as they are now; sometimes the plaintiff gets costs, and sometimes the defendant. The great expense of patent cases, according to my experience, arises from the number of witnesses required, and the exorbitant fees you pay with the briefs.

2400. According

2400. According to the plan which you suggest, would not patentees already in possession of useful patents, have to be daily on the look-out, to see that none of the numerous patents which might be granted, were infringements on their existing patents?

If it were so in any case, you would have the means of repealing that patent.

2401. Under those circumstances, in order to defend his own rights, would not he be obliged always to be on the look-out, to see that no patent was granted for an invention similar to his own, among the numerous patents which were daily coming out?

He would not, perhaps, feel it to be desirable to look after them till they interfered with him in the market.

2402. The practice then would be the same as it is at present?

Exactly so. There are thousands of patents existing which do nobody any harm, because they are not worked, and cannot be worked.

2403. They may be infringements of previous patents?

Yes; but if they are not worked they do the existing patentee no harm, and he does not look after them.

2404. The American Commissioners reject a great many applications for patents, do not they?

A great many, one-half, (and the examination of the rejected patents costs more than the examination of those which are granted.)

2405. Unjustly?

Some unjustly; because they are afterwards granted upon appeal.

2406. The great majority are rejected, are they not?

Yes.

2407. Is not it a hard thing upon me, supposing I am a manufacturer who have been employing a process for 20 years, to find myself dragged into a court of justice to defend my right of doing so, against a patentee who has merely taken the trouble of registering a patent for an invention which is worth nothing?

I do not see that it is, if the patentee has done it innocently.

2408. Supposing he does it fraudulently?

Then the only remedy is to make him pay the costs.

2409. Even supposing he did it innocently, would not it still be a hardship upon the individual who had previously used that process for a long period, to be obliged to resort to litigation to defend it?

Yes, but it would be equally hard upon an innocent man, who had spent his time and his money upon what he believed to be his own invention, to refuse him a patent.

2410. In that case it his own act?

If a man took out a patent for an invention of which he believed himself to be the first inventor, and it was afterwards proved that he was not, the patent might be repealed. In that case, all the inconvenience which would arise would be, that he must prove that he has used the process for 20 years previous to the grant of the patent.

2411. Is not there considerable expense and inconvenience involved in a resort to a court of justice even in the cheapest form?

Going to law at all is an inconvenience, but I do not see how it is to be prevented.

2412. Without wishing to do away with courts of law, is it desirable to increase the causes and the opportunities for litigation, in your opinion?

I do not think it is.

2413. Would not the publication of all specifications of previous patents take away the plea of ignorance from a party infringing the patent of another?

Entirely.

2414. The publication being considered as giving full notice of the existence of the previous patent?

I think so.

(77. 12.)

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2415. So

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2415. So that, in the case of such an infringement as has been supposed, costs would always be awarded?

I presume so.

2416. Is there any other observation which you wish to make, which has not been elicited in the course of your examination?

There is only one observation which I wish to make: there are now 500 patents taken out every year in England; there are only five renewed every year. The inference I draw from that is that the 495 must be useless, or the patentees have received so large a sum of money as their remuneration, that they are ashamed to go to the Privy Council for a renewal, and I have never known the modesty of patentees reach to such an extent yet.

2417. Does not the renewal of a patent depend upon the power of the party to satisfy the Privy Council that he has not been remunerated?

That he has not been sufficiently remunerated; I have known a patentee go to the Privy Council, who stated that he had got upwards of 70,000 *l.* by his patent.

2418. In that case the patent was not renewed?

It was not.

2419. The one per cent. of which you speak would not include the number of patents which have been successful, would they, because, in those instances, there would be no application to the Privy Council?

I think if a patent were successful, 19 out of every 20 patentees would apply for a renewal.

2420. Would they obtain it?

No; because I have known renewals refused, on the ground that parties had received such an amount of remuneration as the Privy Council considered sufficient. I think there is about one application in five refused by the Privy Council. I have never been able to draw any other inference from the fact I have mentioned, than that there is only one per cent. of the patents which are granted which are really useful, and therefore a previous inquiry would be a great waste of time and money.

2421. Supposing it to be the case that only one per cent. of the patents which are granted at present are useful, would not that per-centage be still smaller if patents were multiplied, by being obtained in the more easy and less expensive way which you desire?

I do not think it would, if the specifications were printed.

2422. You think if the specifications were printed, and a system were adopted by which patents could be more easily obtained, the number of useful inventions would be increased?

I think they would be increased; the value of the inventions would be increased; we should then have *bond fide* inventions. I am certain I know 50 persons who would take out patents for inventions if they were cheaper.

The Witness is directed to withdraw.

Sir DAVID BREWSTER, K.H., LL.D., is called in, and examined,
as follows:

Sir D. Brewster,
K.H., LL.D.

2423. WILL you state what your occupation is?

I am Principal of the United College of St. Salvador's and St. Leonard's, St. Andrew's.

2424. It is not necessary to ask you what interest you have taken in scientific pursuits?

I have always felt a great interest in such pursuits, and especially in the question of the patent laws, which I have had occasion to study, and upon which I have

I have published my opinion. I have taken an active part too in many measures respecting these laws which have been brought before Parliament.

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2425. Will you be so good as to state to the Committee in what shape they can obtain your writings on the subject?

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They have generally been printed in reviews and scientific journals; but I believe my opinions are clearly expressed, in an article on the patent laws, in the Edinburgh Encyclopædia, not written by myself, but by Mr. James Simpson, an advocate in Edinburgh, who, being a patentee, had paid great attention to the subject. I gave him all the information I had collected on the subject of the patent laws, and likewise a note of my own opinions. I may also mention, that I wrote an article, "On the Decline of Science," in the "Quarterly Review" for October 1830. It was a review of Mr. Babbage's book on the Decline of Science, and after the article was written, Mr. Lockhart requested me to add to it my views on the subject of the patent laws, which were then exciting considerable interest.

2426. Will you be so good as to state generally to the Committee, what, in your opinion, are the principles on which protection to inventors is justified?

My general opinion is, that patents should be granted free of all expense and that in place of being considered as monopolies, which are injurious to the public, they should be regarded as benefits conferred upon it, and therefore, encouraged by every possible means. I think that patents should be readily granted for every new idea, whatever that idea may be; that every encouragement should be given to persons to bring forward such ideas, and that, instead of throwing difficulties in the way, even where the ideas appear to be frivolous, every facility should be given for their developement, because they may contain the germ of future inventions. The history of science shows that such ideas have often led to very great and important results, and hence, I am of opinion, that to every idea connected with science and the arts, the protection of a patent should be freely extended without any expense whatever to the patentee.

2427. You think that protection ought only to be extended to new ideas?

To new ideas, of course.

2428. How would you ascertain the novelty of those ideas?

By means of a Board of Commissioners. The Board of Trade, or a committee of the Board of Trade, seems to me to be the fittest body of men for such a purpose.

2429. Do you think such a Board as that would be well constituted if it were composed of scientific persons, assisting the Attorney-general?

I think it would.

2430. To such a Board as that, you would entrust only the task of ascertaining the novelty and not the utility of the invention?

Only the novelty. The utility of an invention cannot always be ascertained till after many years' experience; I hold that every new idea must be useful; it cannot be otherwise.

2431. You think that, subject to that previous examination, the price paid for a patent ought to be small?

As small as possible, and certainly not greater than what might be necessary to contribute to the expense of the establishment.

2432. Broadly stated, you think it should be free of all expense?

Yes; it appears to me, that it is the duty of a wise Government to charge the country with this expense, and to use every means to induce inventors to bring forward their ideas, especially in a country like this, where so much depends upon the progress of the useful arts, and at a time when foreigners are making such exertions, and often successful ones, to rival and to outstrip our manufacturers, both in the quality and cheapness of their productions.

2433. Do you think there is more invention in foreign countries than in this country?

No; no country can be compared with ours in the state of the industrial arts. In the scientific arts, I believe, foreigners surpass us greatly, in consequence

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quence of the superiority of their scientific establishments, liberally fostered as they are by the governments of their respective countries.

2434. Do you think that scientific men, in the discoveries they make, are actuated much by the consideration that they will be protected in their inventions by patents?

No, I do not think, speaking generally, that they are. When a new idea occurs to a scientific inquirer, I am persuaded that if the idea is a scientific one, which can be made of practical value, the expense of the patent will prevent him from pursuing the subject and making experiments, in order to bring his invention into use.

2435. Do you think that under the present law a scientific man is not encouraged to invent more than he would be under a system by which no patents whatever were granted?

He is discouraged under the present system from improving his invention, or making a new idea of practical importance. A scientific man carrying on purely scientific researches, has no object in view but the promotion of science; but while he is carrying on such researches, new ideas of a practical nature often occur to him, and new applications of even old truths often present themselves to his mind, which may be of very extensive practical use, but he does not allow himself to be led away into the new inquiry, because he knows he cannot afford the expense of a patent. It is quite out of the question for a scientific man to pay the expenses of a patent, and even if he had the means of doing this, he has no security that he will obtain the advantages which it may be fitted to yield. It seems to me that the first thing is to give the inventor security that he will obtain the benefit of his invention, whatever it may be; and that a court of law shall not have the power to reduce a patent when it is once granted.

2436. Would you make the patent to be granted by a Board, to be appointed in the way you have described, irrevocable?

Yes; the right should be absolute and secure, otherwise it is of no value whatever.

2437. You would limit it to a fixed period?

Yes; but it should be absolute during that period.

2438. You would admit of no subsequent question as to the originality of the invention?

Certainly not; the Board must be responsible for that.

2439. Would you admit any opposition of parties before that Board?

Yes. It appears to me that it would be necessary that applications for a patent should be published to the world in the "Gazette," and that individuals who felt that their interests were likely to be affected by the granting of the patent, should appear and state the grounds upon which they make the objection.

2440. What notice would you give; would you advertise all applications for patents?

I think the applications should be advertised in the "Gazette," and intimation given that it would be decided on by the Board at a certain time.

2441. Would you insist upon the specification of the invention being made at the same time?

No, not the specification, but just such a notice as that which is generally given in the caveat.

2442. Would you have both parties heard in the presence of one another before that Board?

Yes, and then the Board might, if it saw reason, decide that each party had a right to it, and ought to take out a joint patent.

2443. Is not it often the case that inventors arrive almost at the same stage of invention at the same time? The fortunate man who arrives at the last stage first is naturally entitled to the patent. Suppose his antagonist to be a sagacious man, knowing so many of the processes of that invention, would not he be able, by the examination of his competitor, to acquire a knowledge which would enable him fraudulently to assert that he had previously made the invention?

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He might do so, but he would be a dishonest man ; you can never completely protect an honest man against a dishonest one.

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2444. Is it always easy among scientific men to attribute the merit of an idea to the party to whom it really belongs ?

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Nothing has been found more difficult both by scientific men and by courts of law.

2445. Is not it the fact that scientific men have very often, at the same time perfectly independently of each other, arrived at the same stage of progress which has arisen from previous steps, which have been published ?

Yes, but if a man arrives at one of those steps, and does not think that that step is of any value, and therefore does not claim the idea to himself, and if another man afterwards has arrived at the same idea, and makes use of that idea for the benefit of the public, I hold that the right of the first man, whatever it may have been, is extinguished, and that he is not entitled under these circumstances to come forward and oppose the claim of another.

2446. Supposing a scientific man has an idea, and he does not think that it would be worth while to go to the expense of a patent to protect him in that idea, is not there the motive of fame, which would induce most scientific men to give to the public that idea ?

It depends very much upon the man ; there are many instances of things being kept secret and not published. In the case of the achromatic telescope it was invented by a country gentleman of the name of Hall, who did not choose to take out a patent, but put the instrument into his drawer ; Mr. Dollond got a patent for it afterwards. This instrument was found after the death of Mr. Hall to be the real achromatic telescope. It was decided that Mr. Dollond was not vitiated by the previous discovery of Mr. Hall, who had not made it public.

2447. Do you think that his having kept it in his drawer proceeded from a general unwillingness to publish it to the world, or did it proceed from his intention at some future time to be at the trouble and expense of taking out a patent ?

Mr. Hall was a man in a good position in society, and I suppose a man of some wealth, and therefore I presume it could not be the expense of the patent which deterred him. Had he been a poor man I should have inferred that it was the expense of the patent, and the risk of not being able to secure his property in the invention which deterred him.

2448. What class of men does your experience teach you to believe are the most valuable inventors ?

That is a very difficult question to answer ; one invention may be very valuable in its immediate application to the arts, and another invention may be very valuable in reference to the general progress of science. An invention which would enable the astronomer to make new discoveries in the heavens would be very valuable in reference to science, but not in reference to the arts. In the same way an invention, which had a tendency to promote the industrial arts, might have very little value in a scientific point of view.

2449. So that it must always happen, that although persons may have spent much time and labour in bringing out inventions, requiring great ability, and of great use to the progress of science, it is impossible by means of a patent to give them a greater profit than may be obtained by a chance inventor, who hits upon a simple mode of performing some comparatively easy act without much merit belonging to him ?

Yes.

2450. Have you had an opportunity of reading the two Bills which are before the Committee ?

No, I have not ; I believe I have the Bills at home, but not knowing that I was to be examined here I have brought no documents up with me.

2451. You were the inventor of the kaleidoscope ?

I was.

2452. Did you take out a patent for it ?

Yes.

(77. 12.)

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2453. Have

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2453. Have you derived much benefit from that invention ?

No, not much.

2454. Why not ? is not the thing very much purchased ?

Very much purchased ; the patent was never called in question in a court of law ; I think it was Mr. Baron Alderson, in a late case, who stated in court that that patent of mine was repealed ; that is quite a mistake. The litigant in whose case that was stated, wrote to me and got a certificate from me that such a thing was quite out of the question.

2455. Did you lose the advantage of it from the number of infringements ?

Yes, there were cart loads of those instruments shipped for foreign countries. I dare say I might have made a couple of hundred thousand pounds by it if the patent had been protected. There were millions of them sold in London at that time.

2456. And the very fact of the number of manufacturers infringing it, made it impossible for you to protect yourself ?

The men who infringed the patent were Jews generally. It would have been in vain to have gone into a court of law. At that time respectable opticians all paid me for the finer class of instruments which they made. Then, when I resolved not to protect it at all against this class of pirates, of course I made no application to those regular opticians for the payment of the dues which they had paid previously.

2457. I suppose there are many similar cases where, from the facility of infringement, the inventor of a useful invention obtains no remuneration ?

Yes ; and when an infringement is made by a person who has not the means of paying the law expenses which are incurred, no man would think of going into a court of law.

2458. Do you think there is danger by multiplying the facilities of obtaining patents, of inducing many persons to lose their time and money in trying to make inventions ?

No ; I think the fundamental principle of making a change in the patent laws is, that every idea is of value, and every encouragement should be given to a man to come forward and take out a patent, for this reason : when a man takes out a patent, he makes experiments ; he enters into new researches ; he very often makes, in that way, apparently, a frivolous idea into a great and valuable one ; I have never been able to see what evil could arise from the multiplication of patents ; I have never heard any one state a reason which could not be answered, why they should not be multiplied indefinitely.

2459. If you multiply patents very much, as soon as an idea is patented, does not it set other people to work, not to improve that idea in the best way, but to try and arrive at the same end by inferior means ?

Never by inferior means, but by superior means, because, in order to upset a patent, you must do something better.

2460. Do not they seek to arrive at the same end in another way ?

That other way may be a new invention.

2461. Would not it be better that everybody should be able to improve upon that invention at once by its being made known to the world ?

That is a plan which, in so far as I know, has never been in contemplation ; I have heard the idea from intelligent and practical men, that there should be a public Board which should consider every proposal for a patent for an invention, and should purchase the patent right for the benefit of the nation, and thus give the patentee a suitable compensation.

2462. Would that be possible, in your opinion ?

I think it would be possible ; justice might not always be done under such a plan, but it would stimulate invention, and remove the objections to which the present system is liable. It is possible, if I come to the Government with a useful invention, that they may have a Board quite capable of seeing the value of the invention, and giving me a sum, small or great, according to its nature.

2463. Could any combination of scientific attainment with practical knowledge enable persons unerringly to decide upon what is useful or not ?

No ;

No; no decision can be considered as unerring on any question, either of pure science, or science and art combined.

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2464. You have never contemplated such a system as that of having no patent laws at all?

No, such a plan never came into my own mind; I have heard it discussed since I came to London; it is not my own idea; if it could be carried into effect, it seems to me that it would be a very happy arrangement, both for inventors and the public; a Board at once scientific and practical, containing men of practical sagacity and scientific men at the same time (who are not always men of practical sagacity), might, in my opinion, come to a very sound decision on the value of a patent right.

2465. Have you ever contemplated such a system as that of having no patents whatever, leaving inventors to reap their advantage by agreements with manufacturers?

I do not understand how, if there were no patents, any individual could enjoy the benefit of an invention; the invention would be pirated immediately by persons of wealth, and the poor inventor would have the mortification of seeing other men enriched by the fruits of his own genius.

2466. Is not that the case very often now?

It is the case very often, but then it is the case with individuals who do not contemplate taking out a patent, and who, knowing the dangerous position of a patentee, very willingly in some cases, and very reluctantly in others, give their inventions to the public.

2467. Under any system do you imagine a poor man would be able to obtain the lion's share with the capitalist?

I do not think it is possible for the poor man to obtain any benefit from his invention without protection.

2468. Does not the class of poor men who make inventions, chiefly consist of those who invent improvements in the sort of work in which they are usually engaged?

Yes.

2469. Would not they, by offering to manufacturers to improve their manufactures get a certain amount of money, or at all events would they not very highly raise their own value in the manufacturer's estimation, as labourers?

I can scarcely answer that question; I have no means of forming a judgment on such a point.

2470. You do not think a great many workmen now are, by the hope of obtaining a patent, and would be still more under a system in which a patent would cost nothing, induced to sacrifice a great deal of their time to work privately at inventions which turn out to be of no use?

I am satisfied that no man of any ingenuity would work at all unless he had some chance either of obtaining reputation or wealth. The work of an ingenious workman never can be useless, even though it be unprofitable.

2471. Is not it now the case that workmen lose a great deal of time and money, by shutting themselves up, and having no communication with those who could tell them better, for fear of betraying their secret, in order to contrive inventions which turn out to be of no use?

I cannot admit that any invention, or any attempt at an invention, will be of no use.

2472. Is not it a loss to a workman to spend many days or nights in a year, in bringing to perfection an invention which was known to the whole world before?

He does not know that it is known to the whole world, and there are very few cases in which a man thus mispends his time; I venture to say, that there are very few examples of a man labouring at an invention which has, in all its parts, been invented before; even if the invention should be precisely the same, he may indicate new applications and new forms of the invention.

2473. Is not it the case that even now patents are constantly taken out for inventions which were well known previously?

(77. 12.)

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I have

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I have never known an instance of a patent being taken out for an invention which was well known. Even eminent men, who have studied these subjects, would not be able to direct an inventor to any work containing an account of any invention about which he consulted them. It is very difficult when a person is engaged in any new investigation to ascertain what has been done before, either in science or in the arts.

2474. How do you propose that the Board of Commissioners, the appointment of which you recommend, should be able to ascertain the novelty of an invention?

The Commissioners must make themselves acquainted with the progress of science and art during a certain period; it would not be necessary to go very far back. It would be very absurd to prevent any man getting a patent, because such a thing had been known or even registered 50 years before. I would hold the property of all ideas to be extinct after a certain time, to be named, and after that time the Board should make it their business to be acquainted with all those inventions and processes which have been since published or secured by patent.

2475. Is there in existence now, any record by which they might ascertain what inventions had been made, during even a limited time?

There is the Repertory of Arts, and other journals with the same object, and also various scientific journals, which would enable any man of industry and talent, in a very short time, to make himself acquainted with previous inventions and discoveries.

2476. Would not that knowledge be more easily obtained if all specifications which exist were printed, and indices published to them?

Undoubtedly. The specifications of almost all valuable inventions have really appeared in the Repertory of Arts, and other similar works, so that very little labour would be necessary to complete a catalogue of them. Another idea has occurred to me, which may deserve consideration, I would insist upon every patentee lodging three copies of his instrument, or three samples of the result of his process in Dublin, Edinburgh and London. The real instrument itself should be lodged when its value does not extend beyond a certain sum, and three models of the instrument, when it would be too expensive to give the original invention. In that way you might have a museum of immense value, which would be a guide to the Commissioners, and enable them, in the next 30 or 40 years, to do their work very easily and correctly, while inventors, by having access to such a museum, would have the means of learning what had been done by their predecessors. You might have an apartment for this national purpose in the present Crystal Palace, and you might fill it very easily and very advantageously with very interesting and valuable models. Inventors, who are not patentees, would present copies of their inventions, and Government might grant the means of obtaining for it models of previous inventions.

2477. Do you think that the mere importer of an invention from a foreign country, which has been used and published there, should be protected by having a patent given him?—No, not now. It was a very proper thing when there was but little communication between this country and others; but now, when we can, in a very short time, become acquainted with every invention used at Vienna or at St. Petersburg, it would be quite absurd to protect an imported invention. There is no part of the present patent law more obnoxious than this; and its injustice has been well displayed in the patent for the Daguerrotype now protected in England, after the French Government had purchased the invention from Daguerre for the benefit of all the world.

2478. Do you think that one patent ought to be granted for the United Kingdom, or that separate patents should be granted for England, Ireland and Scotland?

They should, in my opinion, be included in one patent, and one sum should be paid for the three kingdoms.

2479. You have no doubt that any very useful invention which might exist abroad would find its way without difficulty to this country?

I have no doubt whatever; but there would be a better way of getting it into this country if our Government would do what other Governments do, send
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some individual into foreign countries to look after the progress of the arts and sciences there, and report it to the Government: The Emperor of Russia has an individual in this country, who has been in all the workshops here and on the continent, to see everything that is done, and to carry every invention which he sees to St. Petersburg. Important inventions may exist abroad, and we may know nothing of them for years, unless there be an application for a patent.

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2480. It is the peculiar distinction of this country, is not it, that most of the great works in which we are engaged are works of private enterprise, whereas in other countries they generally find it necessary to fall back upon the assistance of the Government?

It is, I think, a great mistake in this country that the Government do not take a deeper interest in these matters.

2481. What great advantage has Russia derived from the system adopted by the Emperor?

Enormous advantage, if it be true that advantage is derived from the importation of new and valuable inventions. If Russia imports such inventions, she undoubtedly acquires all the benefits which they are calculated to yield.

2482. Though Russia has imported those inventions, have the manufacturers of Russia thriven in proportion?

They have thriven, and they are thriving. It is a difficult thing to compare the effect of new ideas upon manufactures; there may be other causes which may keep down and depress those manufactures, even though the Russian Government takes the means of promoting them; but it cannot admit of a doubt that it must be for the advantage both of science and the arts that the Government should take an active part in promoting their interests in every possible way.

2483. In advocating an extremely cheap system of patents, do you consider the interest of the manufacturers and the public as well as of the patentees and inventors?

Certainly. I cannot conceive how any person can be injured by there being a number of patents, and still less how any person can be so selfish as to complain of them, and so ignorant as not to see the national importance of encouraging the developement of new ideas. If a patent appears to be frivolous, which I hold no patent can be (because a patentee makes new experiments, in order to bring his invention into practical and beneficial use), I cannot see how even a frivolous patent can affect, injuriously, the interests of any individual: such a patent falls to the ground immediately. Hundreds of apparently useless patents now fall to the ground, because no person values them, or desires to make use of them. But they contain ideas which suggest others more useful and practical; and what is a simple and amusing experiment in one age becomes a great invention in another.

2484. You think there is no inconvenience in there being in existence a great many useless patents?

Certainly none. In the first place, I do not believe that any patent is useless. I cannot conceive how any one is entitled to apply that term to any patent.

2485. Should not you consider a patent to be a useless one which had been inadvertently granted for an invention which was not new?

Certainly not. It would not be useless, because if it has led the individual to make new experiments, in order to make his patent useful, he not knowing that the invention had been made before, it has done some good in that way. You give the patentee an interest in making new researches, even if his idea has been in the hands of the public, and there are many examples of this being the case; but independent of this consideration, I do not believe that there is a single example of a patent being taken out to produce a result similar to what was produced before by the very same mechanism or process. A better result, or even a change of mechanism, proves that there is novelty in the invention, though it may not at the time be beneficial to the patentee, or useful to the public.

2486. Have you any other remarks on the subject which you wish to make to the Committee?

I think it may be important to state it as an undoubted fact, that many valuable inventions are kept secret in consequence of the expense of taking out

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patents. This I know for certain from many individuals in Manchester, Sheffield, and other places, who have not the means of taking out patents. These men have a great many new ideas, which would be brought out and patented if it could be done at a trifling expense. Those are all lost to the public. They are doubly lost, because all these new ideas, when known to the public, would become the subjects of researches which might lead to very important and beneficial results.

2487. Are the possessors of these new ideas, in keeping those ideas secret, actuated by the feeling that they may have increased means themselves of obtaining patents under the present law, or that by an alteration of the law they may possibly be enabled to get the protection at a cheap rate?

I do not think they have any hopes of any such improvement in the law as will enable them to bring their inventions into play. My notion is that they go no further, because they see no probability of their deriving advantage from carrying on their experiments.

2488. You are supposing the idea not to be carried out, but that it is an immature idea?

I suppose that it is an idea, the effects of which they see immediately. The idea is not carried to the extent to which it would be if they meant to make use of it under a patent. There is a peculiarity in the Scotch patents, that the expense of merely registering certain patents is enormous: it amounts sometimes to 50 *l.* The expense of some patents for the United Kingdom and the colonies is between 500 *l.* and 600 *l.* Professor Wheatstone told me that his patent for the electric telegraph cost him between 500 *l.* and 600 *l.* That is an invention of the greatest importance to the nation. Mr. Wheatstone had not the means of paying for the patent if he had not been supported by others. He paid 50 *l.* for the registration of the specification in Scotland alone.

2489. What is the exact nature of that fee of which you complain?

It varies in amount, according to the subject of the specification. The charge is so high, because the charge is made by the folio. Consequently, when it is a patent which consists of various forms of an engine, the description is long and the drawings numerous.

2490. Is Mr. Wheatstone the undoubted inventor of the electric telegraph? Undoubtedly he is.

2491. Was there not a Swede, who paid great attention to the subject?

Oersted was the discoverer of electro magnetism; but, had that not been discovered at all, ordinary magnetism is quite capable of being the moving power in the electric telegraph, and there are some inventions in the Exhibition just now of that description.

2492. Without taking away from the merit of Mr. Wheatstone, does not it often happen that scientific men discover a principle of that kind, and have the real merit of the discovery, but that there is a very easy application made of the principle of that invention by a practical man, who reaps the whole reward by obtaining a patent?

Yes. If electro magnetism had been the only means of working a telegraph, then the merit, not of the telegraph, but of what was necessary to the existence of the telegraph, would have belonged to Professor Oersted.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Monday next,
One o'clock.

Die Lunæ, 2^o Junii 1851.

THE EARL GRANVILLE, in the Chair.

M. LOUIS WOLOWSKI is called in, and examined as follows :

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

M. L. Wolowski.

2d June 1851.

2493. YOU are a member of the National Assembly of France ?

Yes, I am Professor at the *Conservatoire des Arts et Metiers*, and Professor of Commercial Legislation.

2494. In that capacity have you had your attention drawn to the subject of patents ?

It is one of the subjects which it is my duty to teach, not only regarding the legislation of France, but as regards the legislation of other countries. The French system is that which prevails in most countries where there are patent laws ; it is a system which is founded upon the principle of delivering a patent without any previous examination, and that system consists also in only giving temporary protection to the person who obtains the patent. The length of time for which an invention is protected for a patentee, is not as it is in England, of uniform duration, but it consists according to the law of periods, varying from five to ten and fifteen years, at the option of the applicant. Up to 1789 no patents were granted, excepting as privileges at the will of the King. In 1762 there was a decree regulating the mode of granting those patents, but leaving the option of it still to the will of the King. The necessity of those privileges arose from the system which prevailed then in the corporations or guilds, as no one could be admitted into those guilds, and no one could work at any of those trades without being a member of a guild, and you could only work according to the rules laid down for that guild, and it required the privilege to be given, in order to enable the inventor, not being a member of the guild, to employ his own invention. A curious fact in connexion with this subject is, that a patent originally was the means of giving greater liberty, instead of, as at present, being a restriction in favour of the individual who enjoys it. It was not a monopoly as regards the public, inasmuch as by granting a patent to an individual, not being a member of a guild, it broke down the monopoly of the guilds ; and the consequences now attend the principle on which patents are granted in Austria and some other countries. Much is now said in France of the rights of labour ; at that time it became necessary to obtain the right of working at all. The law, up to the time of 1791, destroyed the restriction which had hitherto existed upon the rights of any man working. The principle of giving to every person, on his own application, a patent for a new invention dates back from the law of 1791, which destroyed the right of the King or the Government to use any discretion with regard to the granting such a privilege. Instead of being a Royal concession, it was a right to the person applying for a patent, which was obtained within the limits of his demand, as described in the specifications with which he had accompanied that demand. Under this law the petitioner stated for what period he wished to have this patent, whether it was to extend either five, ten or fifteen years. This distinction was required, in order to settle what the fees were to be paid for this patent. For a patent for five years the fee would be 300 francs ; for a patent for ten years the fee would be 800 francs, and for a patent for fifteen years, 1,500 francs. This law remained in force from 1791 till 1844. Thus, a patentee was obliged to pay the whole sum, however

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willing he might be to abandon his patent right, at the end of one or two years. This provision was changed by the law of 1844, and the fees are now paid at the rate of 100 francs per annum, so that any one may now choose what limit he will select between one and 15 years; but the moment the annual payment ceases to be made, the patent expires; so that almost everybody who now applies for a patent applies for a patent to run 15 years. This is one of the more important modifications in the law of 1844.

2495. Do you think that it is an improvement?

Yes, I think it is; we copied it from the Austrian legislation. The principle involved in this matter is not, as some think, in the nature of an acquired right to property, but it is in the nature of a contract between the inventor and the public. It is an advantage to the public that they should be put in possession of a full description, not only of the invention but of the means required to carry out that invention, and by a patent, the validity of which consists in there being a correct and full specification of the invention, that right is obtained. The only other way of inducing an inventor to make such a discovery would be by the public or the state buying his invention, and making it at once public property. The difficulty, in that case, is to put any positive value upon the invention, as the inventor might at that period demand or receive either too much or too little; but by the grant of a patent the amount of profit derived by an inventor from his discovery, and the utility or productiveness of his work, settle that question. There is an important point, which is with regard to the improvements and additions or changes which can be made in a patent already obtained. Formerly, it was a general complaint that an inventor found other persons improving or altering his invention, and getting patents for such improvements, and so preventing himself from making those improvements which he would naturally have been led to discover from the application of his own invention. By the old law, really, a person was obliged, in order to protect the most unfinished idea he had, to obtain a patent, and he then exposed himself to other persons obtaining patents for any improvements they might introduce, and which were grounded on his original idea. By the present law he is saved from this difficulty, because to him is reserved the right of making improvements in that invention; and if any one else makes an improvement upon that original invention in the course of the first year, the advantage of such an improvement belongs to the original inventor. It is the practice to protect the rights of a third person who may introduce any improvement upon this invention; as he may be unwilling to discover his secret to the inventor, who would derive all the benefit from it, he may deposit his specification, in a sealed packet, with the Minister of Commerce; at the end of a year that packet is unsealed, and if, in the meantime, the inventor has not introduced that improvement himself, his rights cease, and the rights belong to the person who so produced the improvement.

2496. Does the Minister of Commerce decide upon whether the improvement is perfectly original or not?

The specification itself decides the question; if the inventor wishes to add any improvements he must give detailed specifications of those improvements.

2497. But if an inventor says, this is a dissimilar improvement, and a third person says it is exactly similar to that which is specified, who decides then whether the specification is similar or not?

The courts of law decide the question; the minister decides nothing; he merely registers exactly what is given him, with the exact date of each application.

2498. May a third person who improves a machine at the expiration of a year, the original inventor in the meantime not having introduced the improvement, obtain a right to a patent?

After the lapse of the first year, the use of the patent taken out for the latest improvement becomes matter of compromise between the original inventor and him who invents the improvement, as neither the one nor the other can use that part of the invention of the other without mutual consent; the improver obtains a patent for that addition which he has made to the invention, but he cannot use the invention itself without a license from the original inventor. The original patentee has this advantage, that he has only to pay 20 francs to the whole extent of the additional patent, whereas the improver of that invention is obliged to

to pay 100 francs a year as long as it lasts ; but there is this difference between a patent obtained at a cost of 20 francs by the original inventor, and that which is obtained at the rate of 100 francs a year by the improver of it. In the first place, the new patent expires with the close of the original patent, whereas if it is taken out separately it has a right to go on, on the payment of 100 francs a year, to the end of the 15 years ; and it sometimes happens that the original patentee prefers using the license of a stranger to taking out his patent for the improvement, in order to prevent the patent expiring with the date of the original invention.

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2499. How is it decided whether the invention is an improvement upon the existing patent, or whether it is a separate invention ?

This turns entirely upon whether the second invention can be used without the use of the previous invention ; and, to illustrate this, I take Watt's steam-engine and the expanding machinery introduced by Meyer ; in this case, although the expansion was an improvement upon the steam-engine, if it could not be used without the application of the steam-engine itself, it could only be considered the subject of an improvement, and not an original invention ; if an invention is distinct, a distinct patent is taken out. I put the case of an improvement inseparably connected with a previous invention, as it were, of engrafting a rose upon the stock of a wild rose, when it could not grow if it were engrafted upon a tree of a different kind. That which constitutes the validity of a patent is the novelty of the invention described, and a complete description of the means employed. On the question of novelty, the French legislation is different from that of Great Britain, in this respect ; in Great Britain, anything that has been written, or published, or used in any foreign country has no previous existence whatever in the eyes of the law ; in France, on the contrary, we require that the novelty should be complete, and not relatively to the country itself ; so that if the process has been either used or described in a book in any other country, a patent becomes void ; this does not apply to so vague a description in a book as would not be sufficient for the working of the process ; any description sufficiently definite to enable a workman to make use of the process would be fatal to the patent.

2500. Are you aware of any inconveniences having arisen to the public or to inventors in France on account of this provision ?

This rule has been less severe since 1844 than it was before ; before that time the courts of law, which are in general hostile to the rights of inventors, took advantage of any vague description, or even similarity of description, in any foreign work to void a patent. Before 1844, we had patents which we called "*Brevets d'importation*." These patents were given for inventions which were already patented in foreign countries, and those were granted to any person who chose to demand them. Since 1844, no one can obtain a patent in France for an invention previously patented in another country, except he be the original patentee or his assignee ; the original patentee of another country may obtain his patent at any time before the expiration of the patent in his own country, but that patent in France will only last as long as the patent in his own country continues. This right of patenting an invention which is already patented by an inventor in a foreign country, does not extend to that inventor whose invention has been described and published in a foreign country.

2501. If an inventor has a patent in a foreign country, and makes use of that patent, but no complete specification has been published of that patent, does that nullify the power of obtaining a patent ?

No.

2502. Suppose the specification is not officially published, but that it lies open in such a way as that persons could obtain information as to that specification, how would that be ruled in the French courts ?

Publication would only be considered to be the printing of the specification, and making it open to all the public ; but a specification lying in a particular place, which might occasionally be consulted by people, would not constitute such a publication ; but any description, though not an official specification, which was sufficient (in any periodical journal, for instance) to describe the invention and the modes of working it, would nullify any application for a patent in France ;

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France; and the use of the invention in France, before the patentee had applied for a patent, would also be considered as a publication destroying its novelty.

2503. You mean to convey that the consequence would be, that he could not obtain a sentence in his favour from the tribunals?

I am speaking only of the obtaining such patents as are good in a court of law; for, as there is no previous examination, anybody can obtain a patent for anything he chooses.

2504. Is it the case that patents are frequently obtained by inventors for inventions which are neither new nor of any value?

Yes, very frequently.

2505. To any great extent?

Yes.

2506. Does not that lead to litigation?

Very much indeed.

2507. What are the tribunals that take cognizance of these causes?

In the case of a person wishing to void a patent, the matter is taken before *Le Tribunal Civil*. In the case of an inventor wishing to punish another person for an infringement of his patent, then it is taken to *Le Tribunal Correctionnel*, and the effect of the two decisions is very different. When the civil court has decided that the patent is void, it exists no longer for anybody; the decision of the civil court amounts to a declaration that the patent is void. The minister publishes, every three months, a list of the patents which have been voided, whether by the decisions of the court, by the non-payment of the fees, or from any other cause, or through the expiration of the term. I have already said that there is a great difference in the decisions given by the civil tribunal and the correctional tribunal. When a decision is given by the correctional tribunal, that decision is limited to that particular case of infringement, without any opinion being given as to the general validity of the patent itself. The correctional tribunal may decide that any particular case is not a case of piracy, without at all invalidating the right of the patentee to proceed against other parties who do truly infringe his invention. In the case of infringement, the defendant may defend himself by either stating that there is no piracy of the invention, or by stating that the invention of the patentee is worth nothing.

2508. You mean by saying that the invention may be worth nothing, that the invention is one that is not novel?

Yes; in that case the correctional tribunal decides whether the patent is valid or not, and, according to that decision, the patent becomes void, or is good, in the same manner as it would have been decided by the civil court.

2509. Will you have the kindness to inform the Committee whether the law proceedings are more expensive before the civil or before the correctional tribunals?

The expenses are heavier before the civil tribunal. The expenses are not very great, excepting in the case where scientific witnesses are called. Scientific witnesses are not obliged to attend; but, if they attend, they must, of course, be liberally remunerated.

2510. Do they appear as witnesses, or are their services required by the courts for its assistance?

They are parties named by the court to assist it with their advice. They appear not as witnesses, but as assessors to the judges. In cases where the court applies to men of considerable eminence, it may be said that it is they who give the judgments which is registered by the courts. The costs are paid by the party who loses the cause. There is no jury either before the civil or the correctional tribunal. The penalty for the piracy of an invention extends from 100 to 2,000 francs, with confiscation of the tools and implements, and the work produced; the confiscation being for the benefit of the inventor. In the event of a second act of piracy within five years, in addition to a double fine, the party incurs further imprisonment from one month to six months. At the time of the delivery of a patent, a specification and full description are deposited in the Patent Office, where it is open to the inspection of the public; and at the end of two years, those documents are published. This was provided by the law of

1844; but by the law of 1791, the publication did not take place till after the expiration of the term of the patent.

M. L. Wolski.

2d June 1851.

2511. Do you think that the patent law of France, as you have described it, works beneficially for the public interests?

I think that the patent law of France is susceptible of improvements; but in its present state, I think it a very useful law, and one that is advantageous to inventors. I could speak with more confidence upon this subject, the National Assembly being at present occupied in considering improvements of the patent law, and I myself being a member of the commission appointed by the Chamber. The subject of the fees to be paid is one of the points under our consideration. We have borrowed from Austria the system which prevails there of annual payments; but there is a difference in the practice of Austria, where the fee is made to rise progressively, increasing in amount from year to year during the existence of a patent. The General Council of Agriculture, Commerce and Manufactures, of which I am a member, has recently recommended to the Government the adoption of the Austrian system. A proposal has been made to the Chamber to extend the period of patents to 20 or 25 years, of which I do not approve. We experience one difficulty in France from the diversity of the tribunals to which questions regarding patents are referred, those being questions regarding patents which cannot be brought under the cognizance of the Court of Cassation, as they involve matters of fact and not of law. Some persons would propose the establishment of a special tribunal for the trial of all patent cases. To sum up my opinion on the subject of patents, I think that our legislation is good, but the administration of the law is defective. I have omitted to state an exception to the rule, that patents might be obtained without previous inquiry. Medicines cannot be the subject of patents in France. There is a farther exception regarding any new suggestions as to financial schemes, which cannot be patented. In the process of obtaining a patent, four documents must be deposited at the Office of the Secretary of Prefecture of the Inventor. Those are, first, a petition; secondly, a specification wholly written in French, and descriptive of the machine, and its use; thirdly, a drawing, or where that is impossible, a sample of the produce; and, fourthly, an inventory of those documents. He must beforehand make a deposit of 100 francs, of which he brings a certificate with him; and if for any reason the patent should be refused, this deposit is restored to him. If his descriptions are found to be imperfect; if the drawings are not upon a proper scale, and the specification is not in French, then one-half of his deposit is forfeited; but if these defects are made good within three months, the whole is returned to him. There must be a specification and a title.

2512. Has any difficulty been experienced in ascertaining the publication or use of inventions abroad that have been patented in France?

In the case of piracy of patented inventions, any dealer in whose hands they are found, is liable to the same penalties in law as the person who originally pirated them, provided he knowingly had them in his possession.

2513. You stated, did you not, that there was a publication of all patents at the end of two years?

Yes; it is an official publication, printed; we have 76 very large volumes.

2514. Is it published at the expense of the department?

Yes; it is published at the expense of the Department of Commerce. The fees charged for patents are in part applied to this purpose.

2515. Are those volumes carefully indexed?

Yes.

2516. Is there any period at which there is a publication with a sufficient index of all the existing patents?

Yes; there is a sufficient index.

2517. Is that published periodically?

Annually.

2518. Does that annual publication comprise all the patents then in existence?

Yes; all those granted within the year.

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2519. Is

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2519. Is it a very expensive publication?

Very : the charge of that publication amounts to about 30,000 francs a year ; each volume on sale costs about 15 francs. Copies of this work are sent to all the chambers of commerce and public libraries in the republic ; they are therefore easily accessible to the public, and after the expiration of the patents all the specifications, descriptions and models are deposited in the *Conservatoire des Arts et Metiers*, where they may be consulted by the public gratis.

2520. Do you think, generally, that the law in France is satisfactory to inventors and to the public?

The inventors are not easily satisfied ; they consider that the law does not give them quite sufficient protection, and the manufacturers think that it gives them too much.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Friday next,
One o'clock.

Die Veneris, 6° Junii 1851.

THE EARL GRANVILLE, in the Chair.

JAMES MEADOWS RENDEL, Esquire, is called in, and examined as follows :

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

J. M. Rendel, Esq.

6th June 1851.

2521. YOU are a civil engineer ?
Yes.

2522. Have you had your attention directed to the subject of patents ?

Yes ; during the 25 years that I have been in practice, I have frequently felt the inconvenience of the present state of the patent law, particularly with reference to the excessive number of patents taken out for frivolous and unimportant inventions, which I think are much more embarrassing than the patents that apply to really important inventions.

2523. Will you be so good as to state what are the principal inconveniences which arise from the multiplicity of patents for frivolous inventions ?

I have found them interfere in a way that very much embarrasses an engineer in carrying out large works, without being of the slightest advantage to the inventors, excepting that in some cases a man who takes out a patent finds a capitalist (however frivolous the invention) who will buy the patent, as a sort of patent-monger, who holds it, not for any useful purpose, but as a means of making claims which embarrass persons who are not prepared to dispute questions of that sort. I think that in that way many patents are granted which are but of little benefit to the real inventor, serving only to fill the coffers of parties who only keep them to inconvenience those who might have occasion to use the particular invention in some adjunct way which was never contemplated by the inventor.

2524. That is a case in which the possession of a patent, though it may not be good in itself, is still frequently used as a means of forcing manufacturers and engineers to come to a compromise upon the subject ?

I have frequently found it to be so. For instance : after you have designed something that is really useful in engineering works, you are told that some part of that design interferes with some patent granted for an entirely different purpose, and which might in itself be frivolous, but important in the new combination ; and one has such a horror of the patent laws, that one evades it by designing something else, perhaps as good in itself, but giving one infinite trouble, without any advantage to the holder of the patent. I have frequently found this to be the case.

2525. What means could you suggest of granting patents for really useful inventions, and refusing them for those that might be considered of a frivolous nature ?

I think one of the great objections to the present system is, the abuse made of the privilege of six months for specifying. A man imagines that he has contrived something that is new, and, whilst his own mind is perhaps in a state of chaos on the subject, he runs and obtains a patent, and has six months to specify. In those six months he makes it his business to find out what he can patent, and he canvasses the subject here and there ; he gets hold of ingenious people, and he works himself at last into something which he calls his patent, but about which he had no conception at the outset. Thus a man has time allowed to him,

J. M. Rendel, Esq. not to mature, as was the intention, the thing which he originally thought of, but really and truly to get up an invention for a patent.
 6th June 1851.

2526. Would you give a patent for nothing but a matured invention?

I would require, when a man applies for a patent, that he should deposit a specification, which should distinctly indicate what he was going to patent, and he should be held to that specification. I do not think that you could require a man to deposit a thing entirely and completely in detail, though I should desire this if it could be done; but I think that he should specify the principle of the invention that he was going to patent completely, and that he should be fixed to that principle.

2527. How would you prevent him obtaining that patent, supposing that he specified for a frivolous invention?

There is very great difficulty in that; but as I believe that it would inflict great hardship upon many deserving individuals to do away with patents entirely, and that the public are not prepared for such a thing, I think that we must endeavour to find out the best remedy we can for that difficulty. I certainly have often thought that it would be a very excellent check upon the avidity with which ingenious schemers show for patents, if, after they had deposited a specification defining the principle of their intended patent, the subject could be investigated by competent people, who should say whether or not there was sufficient originality or sufficient value in the project to justify a patent. I do not see any other remedy for what is really a very great evil.

2528. How would you constitute a Board, or what machinery would you adopt, in order to conduct this previous examination?

I should say, according to my hasty notions of the thing, that if you could contrive a commission, and suppose a man deposits his specification for a patent before he had it, there should be an investigation by the most competent tribunal that you could devise for such a purpose: suppose it was on the subject of engineering; then I would take such a man as Mr. Brunel, with any other high in the profession, and known to be practical men, to sit as a jury upon the particular subject; or if not, I would have them appointed, with proper authority from the Crown, to act in cases of patents for particular subjects as judges, and I would before that tribunal summon the parties interested, for instance, the inventor, to describe what he intended to patent, and the public to object, and to show cause why the patent should not be granted; and in that way I think you would get rid of an enormous number of futile patents that are now taken out.

2529. Which plan, in your opinion, would answer the purpose best, to leave the examination still with the law officers of the Crown, requiring them in all cases of difficulty to call in scientific witnesses, the best adapted for the particular case in dispute, or to constitute a Board, with two or three scientific men, assisted by a lawyer, as a tribunal?

I should say, constitute a Board. The law officers of the Crown are so loaded with more important duties, that I doubt very much if they would be able, whatever might be their disposition, to give the necessary attention to the subject in this ingenious country and age to transact that business satisfactorily to the public and to the parties seeking the patents. In this country the difficulty is to get men recognised to be authorities to give sufficient amount of attention to questions of this sort to justify the decision of the law officers of the Crown; there would be that difficulty; but you might, perhaps, adopt this plan: suppose upon engineering subjects two or three of the principal engineers were examined, and that the proper law officer, be it the Attorney-general or the Solicitor-general, or any other person, should have always at his command (of course having reference to the convenience of the parties to be consulted), the power of referring the question of engineering to those persons, or on matters of chemistry to such a man as Professor Faraday or Dr. Lyon Playfair, or, going through the different departments of science, to get advice from the persons recognised by the country to be the most conversant with those particular subjects of science, I think there would not be so much difficulty; my conviction is, that if you came to analyse the patents, you could so divide the labour, that it would not be great, and then I feel also that in that way you would have much more likelihood to have the questions disposed of satisfactorily to the parties

parties themselves; I doubt very much if you were to constitute as judges persons in the position of patentees themselves, that is, persons who take them out as a matter of business, whether you would not have constant complaints, whether just or not it might be difficult to say; I think, in this way, you would escape many of the difficulties that would otherwise arise on that preliminary inquiry.

J. M. Rendel, Esq.

6th June 1851.

2530. The Board you propose to establish is not exactly a permanent Board, but it would be constituted of scientific persons, previously named, to any one of whom the legal authorities would refer the question?

If you could get competent professional men to agree to constitute a Board, to be referred to upon all occasions when patents upon subjects with which they were particularly conversant were sought for to act as jurors, I should prefer very much that they should be two or three persons specifically named; but I am apprehensive that it would be difficult, and therefore I think it is a question whether there should not be some power vested with the Attorney-general or the Solicitor-general, or some officer of the Government, to make it optional, to a certain extent, who should be called in; I can readily imagine that in this country we should otherwise have a very considerable amount of heart-burnings; a man might say, "Mr. So-and-So has seen my invention before, and has condemned it," or it might be, that Mr. So-and-So had seen the invention before, and had approved of it; and this might be the case with persons however high in their profession.

2531. Would it not be much easier, even for persons of the highest reputation, to decide upon the novelty, than upon the value of any new invention?

I do not think that you could quite go to the extent of enabling them to decide upon the value, that is, in express terms; but such a competent tribunal I imagine would be in some degree influenced by the probable value of an invention. There are hundreds of things thought of so novel, that you might have a patent on account of the novelty.

2532. Do you happen to recollect any instance of any invention which probably was new, but which was of so frivolous a nature as that it was not for the public advantage to patent it?

No, I cannot call to mind any particular case; but I could look them up.

2533. Or do you recollect any particular class of cases?

There was an invention some years ago of a file, or rather two files, placed at right angles to one another, for sharpening black lead pencils, instead of cutting them: that was patented, and, I believe, the patentee sold the patent for a very large sum of money; that is the class of things I was speaking of; merely two rough files about an inch long (short files) placed at right angles to one another, and between the rough surfaces the pencil was introduced, and rubbed between them, to sharpen it.

2534. Did that purchase prove beneficial to the person who purchased it?

I am not aware.

2535. Upon what ground would you object to that as an unfit subject for a patent?

I think it so remarkably frivolous; in the first place, you might have done the same thing on a common file. You would not have rubbed both sides of the pencil at the same time, nor would you have to make the pencil revolve between your finger and thumb in the process; therefore, the one advantage was set against the other; but the public ran after it for a time, and every man carried one of these things in his pocket.

2536. It was a simple contrivance, but it was a contrivance which had not been before resorted to, and if the invention, tested by the market, would produce a considerable sum of money, what are the particular evils you would point out as arising from granting a patent in such a case?

The practical evil is this: if you do it in a case of this frivolous nature, you must multiply patents to an enormous and indefinite extent; and there is really in this case nothing particularly new, excepting that you put two files at right angles to one another. You may do the same thing upon a plain file: I could sharpen my pencil upon either face of the double file, and the only pretence for

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the patent was, that you had two files placed at right angles to one another. That is just a case of a class that appears to me to be extremely frivolous, and if you had a court of the description I have named, I feel quite sure that many things would be found unworthy of a patent.

2537. One mode that has been suggested to this Committee for gradually getting rid of all such frivolous patents is that of charging a continually increasing sum annually, or at other recurring periods; how do you think that that would work?

Very well; I think one of the great objections to the present system is the large sum that is demanded at the outset, which affects the really ingenious but poor man most seriously, by compelling him, however meritorious his invention is, to go to some money lender or some patent-monger, men who buy up patents, and those men agree, upon most usurious terms, to advance the 120 £. or 130 £. that the poor man wants to take out the patent. They are secured in this for as long as the patent lasts, and perhaps they give this poor man a fifth or sixth, or some very small portion of whatever value the patent may ultimately realize, and very often even in that case the inventor gets nothing. I think that if you established a court of the kind, which I have been speaking of, you would get rid of that completely, because a poor man would then be able to advocate his patent before parties who would be perfectly able to judge of its value, and upon the payment of a small sum down, he should have a patent granted to him. I think if the invention were really novel and valuable, the smallest sum should be demanded of him, and at the end of four or five years, or any time to be fixed, he should then pay a large sum, because he would have had a sufficient time to establish his patent; and if he could not establish it then by capitalists, I think it should lapse, because of the great inconvenience of those unused patents always lasting over so many years.

2538. Do you think that the system of continually increasing payments could be rendered so effectual that the Board of Examination might be dispensed with?

I do not think it could. I doubt very much even if you could make them triennial, because if you were to establish cheap patents, you would have such an influx, that really you would do more damage to the poor man, by inducing him to be inventive, than you would do him good. My own feeling about the matter is this: I think that patents do some harm to poor men; and poor men, whilst working with their employers' capital and tools, are constantly scheming. That is an evil; there is no denying it; and if I could see my way perfectly clear to the justice of doing away with patents altogether, I should feel that it would be a great benefit to a very considerable class of poor men who fancy themselves ingenious and original, but who are really not so. I know that there are some men who really are ingenious and original, who would be seriously damaged if they had not the power of carrying to a profitable market the result of their inventions. I think that whilst we do as much to check the one as we can, we ought not to inflict a hardship upon the other.

2539. Is it ever the case now, from the stimulus given, by the hope of obtaining a patent, to a poor man to invent, that the manufacturer becomes jealous of an ingenious workman?

I can comprehend perfectly, and I believe it does happen that selfish manufacturers having derived the full advantage of their workmen's originality of conception, have, from selfish motives, discharged them. I know it is not a very uncommon thing for manufacturers to say, "This is a talking, ingenious fellow, who is half his time scheming; we will not have anything to do with him;" that is commonly said amongst them; but there are other manufacturers who, on the contrary, seek out such men.

2540. Would not the latter class seek them out more if they were not afraid of their taking advantage of their tools and machinery to discover patents which they would keep secret, and either sell the patent right to oblige them to pay a large sum for its use, or sell it to their neighbours?

I believe that in many cases that will happen. I have often talked over the matter with Mr. Brunel, and I quite agree with him that there are cases of that sort; but I know that there are cases of a contrary kind, and therefore I think the justice of the whole thing demands that we should rather consider the really
 meritorious

meritorious inventor than the mere schemer. I do not think you could do away with patents altogether: I think they have done a vast deal of good, as well as some evil. That is the result of my experience upon the matter; and I believe a very large proportion of the evil has originated in the absurdity of the law. I think we might derive much good from patents by reforming the law; but I apprehend that evils have grown up, and have continued for a long time, and that it will take some years to reform it in such a way as will be really just to all parties concerned, the public and the inventors.

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2541. And that reform of the law which you think might be made effective to remove a great portion of the evils would, in your judgment, consist in giving discretionary powers to be exercised by persons of competent knowledge, in granting patents in the first instance?

I think so. I would repeat what I conceive to be the absurdity and the inconveniences of the present law. I would mention, first of all, the six months allowed to a man to specify, for the reasons I have before assigned; I believe there are persons who avail themselves of that privilege as a trade; they hear of something taking place in science; they rush and obtain a patent; they have six months allowed them to acquire information; they devise something that they fancy is really new upon that particular subject; and then, during the whole of the six months that are allowed, they are really working up information, in order to prepare their specification; and that is a very great abuse of the intention of the law. There is another thing which I feel to be very inconvenient, and that is, that a man may specify half-a-dozen things in the same patent; I have known this occur with manufacturers in London. I have a case which I could name, if it were desired, or prudent, where it is the trade of a manufacturer to invent ingenious machines, and he will go on inventing, and perhaps at the end of 12 months he will take out one patent which will apply to machines for as different purposes as you can imagine: for instance, I know a case in which a man made some weighing bridges for me, and they were very ingenious, clever things. He afterwards invented a new form of ship's compass, and he took out a patent, and the patent applied to the weighing-bridges and the ship's compasses; and these are things that ought not to exist in the same patent.

2542. There is a difficulty in limiting a patent to exactly one invention, is there not, if the inventions hang together very much?

I can imagine such things; that again, I should say, should be decided by competent authority; but there can be no analogy in the world between a weighing-bridge and a ship's compass.

2543. Do you think it desirable that all specifications should be printed?

I think they should be published immediately; I think that the public ought not to be called upon to bear the inconvenience of patents at all beyond what is necessary to protect the property in the thoughts of an ingenious man; I think that as soon as ever a specification is entered, it should be published.

2544. Do you think that there is any difficulty in patents being issued separately for the three kingdoms?

I think that a patent should apply to the three kingdoms.

2545. With regard to the importation of an invention from a foreign country where it has been known and used, do you think that the mere importer should receive the same protection as an inventor in this country?

I think not; I think that is a very great abuse.

2546. Do you not think it necessary, in order to introduce inventions into a country, that that sort of protection should be given?

No; I do not think it necessary; I believe, indeed I am confident in the resources of our own mechanics, and I do not see why we should seek to benefit the inventors of another country, who really would receive benefit by having it said in their own country that their machines were used in this; I do not think that the being a foreigner should be any disqualification to a man who invents in this country, or that it should be a condition that he should be naturalized.

2547. You do not see any objection to a foreigner simultaneously taking out a patent in this country?

No.

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2548. You

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2548. You have stated, have you not, that in your judgment an application for a patent should be accompanied with a specification, not so full in its details as that which is now required for the final completion of a patent, but still specifying, with a considerable degree of accuracy, the principle of the invention, and the object to which it is directed. Would it be desirable to set forth, with sufficient clearness, in the language of an Act of Parliament, what you would require with regard to that specification, or must it be left to the discretion of the proposed Board?

I think it must be left to the Board; I do not think that you could legislate upon such a subject.

2549. You have stated, that in the case of a patent being granted, the sum originally paid should be small?

I think it should.

2550. How would you propose to defray the expense of the proposed Board?

I think that if you were to have a fund created out of the monies to be paid for the renewals of patents (because there would be renewals), you would fully meet all the expenses of such a Board; I believe that you would so completely reduce the number of patents by that process of pruning, and the investigation which I have been supposing, that a very few of those granted would not be renewed at the end of three, seven, and perhaps ten years.

2551. Has it not sometimes happened that inventions which have subsequently turned out to be most valuable and important inventions, have been thought, by the first scientific men of the day in which they were invented, to be practically chimerical?

I have no doubt that there are many cases of that kind, and that it would be one of the other difficulties we should have to contend with; but it is a much smaller difficulty, and would inflict much less hardship than what I am supposing this Board to remedy; for I am aware that many of the most important inventions have been considered most absurd and chimerical; but the eminent men who so considered them were really not so well-informed as the eminent men of this day. There has been a very hard race during the last 20 years, and eminent men can only become so by being more generally informed. If I compare the eminent men in science in the present day with those of 25 years ago, I cannot but see an enormous improvement in their general knowledge.

2552. Would you make the opinions of the scientific members of the proposed Board binding on the law officers, to whom the power of granting or withholding a patent is by law entrusted?

I dare say that in the end there would be a necessity for some sort of appeal. I do not quite see my way to it, although I believe in this country that unless you had some appeal, the Court would not be very satisfactory. I think I should not leave it optional with the law officer, whoever he might be. If the assessors returned in favour of the inventor, I should not feel disposed to consider that it would work well to leave a negative optional with the law officer.

2553. But taking the converse of the proposition, would you enable the law officer to grant a patent where the assessor reported an invention to be frivolous or unimportant?

No, I would not; I think it should be positive and conclusive, the verdict of the assessor, and, as far as you can make it, the power of appeal should be very difficult.

2554. You are not prepared to say to what person or to what body of persons, the appeal should be made?

No; but I should make it of the highest description that could be recognized.

2555. In the granting of a patent, or for the proper examination of a specification or a claim to a patent, is there not a certain degree of legal knowledge required, as well as scientific knowledge?

I believe there must be, in order to conform to certain legal forms which are necessary to make a patent binding at all; but patents would still be disputed when the subject was large enough, and you would still have appeals to the Privy Council, I think.

2556. Do

2556. Do you think that scientific men would have sufficient legal knowledge to enable them virtually to come to a decision themselves? *J. M. Rendel, Esq.*

Upon all legal points I would leave it much to the decision of the legal advisers, namely, the Attorney or Solicitor-general, or the proper legal adviser. I only say with reference to an invention itself, as to its originality and its suitability for a patent; if you make a Court at all, you must make the opinion of the Court itself decisive as far as the granting of the patent is concerned; but, of course, no scientific man would venture to say whether there were legal difficulties in the matter.

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2557. After a patent had been granted by a Board constituted as you propose, what pleas would you allow to a defendant against an action for violating a patent; would you allow him to plead "want of novelty," or "want of adequate specification," or limit him only to the plea of "non-violation"?

I think you must still leave it open to a defendant to plead "want of novelty," in fact to plead very much as he now does; I do not think that you could interfere with my right, as an individual, to dispute the originality of a patent; I think it would be such an interference with legal remedies.

2558. Do you think that a Board could not be so constituted as to give you sufficient confidence that it would be the means of stopping that litigation which arises upon questions of novelty and specifications?

I think not; I think that the only justification of a Board at all is to remove out of the way a vast multitude of useless patents that are of no benefit to the inventors, not the slightest, and a great inconvenience to the public; and it is on that account that I think that if a court of the kind I have been supposing should be established to investigate a patent before it is granted, it would do good.

2559. Have you had your attention called to the question of patents in the colonies?

No, except as engineer to the East India Railway; I know of no patents which affect us; we had a little inconvenience the other day; we wanted to manufacture articles patented in this country, and we had to pay patent rights; it was a question whether we had not better buy the iron in India, and avoid the patent rights; and those cases I think are constantly occurring; the patent laws not being applicable to India, people will not unfrequently order things to be manufactured in India to avoid the license dues in this country; and the consequence was, that I made an arrangement with the patentees at about one-half of the ordinary charge for the patent in this country.

The Witness is directed to withdraw.

JOSHUA PROCTER BROWN WESTHEAD, Esquire, a Member of the House of Commons, attending, is examined as follows: *J. P. B. Westhead, Esq., M. P.*

2560. YOU have been Chairman of the Inventors' Association for the Amendment of the Patent Laws, have you not?

Yes.

2561. What is your occupation?

I have been connected with the manufacture of small wares, which is a very comprehensive branch of woven fabrics of the narrower widths, and of many kinds, from the ordinary circular lace to the broadest tapes and bindings.

2562. In your business, have you had occasion to use inventions either made by your own firm, or patented by other persons?

Yes, both; I have patented several inventions, and I have, along with my partners, become proprietor, by arrangement, with the patentees or part proprietors of other inventions.

2563. In that capacity, have you turned your attention to the subject of the working of the present law?

Yes, to some extent, I have.

(77. 14.)

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2564. Will

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2564. Will you state what are the principal defects of the present law?

I think one principal defect is the extreme difficulty that there is to parties who wish to take out patents for what they suppose to be new inventions, ascertaining whether anything of the kind has been previously introduced to the public.

2565. Do you think that that difficulty might be met, by having the specification printed and proper indices published?

Yes, in a great degree, it would.

2566. What are the other objections which have occurred to you?

I think that the expense of a patent at present is a great objection. The consequence is, that a great many persons take out patents for England only, and very few for Ireland.

2567. Do you think that there is any reason for confining each patent to one of the three kingdoms?

I should think not, if the expenses were reduced considerably.

2568. How far do you wish those expenses to be reduced?

I think that the sum specified by the Inventors' Association with which I was connected, appears, on the whole, to be reasonable and proper; that, I think, was 10 *l.* on the application for a patent; 10 *l.* at the time the patent is granted; and after the lapse of three years, a further payment of 40 *l.*; and at the termination of seven years, 70 *l.* more, or altogether 130 *l.*

2569. Do you think that it would be advantageous to a poor inventor if he had some provisional protection which would enable him to publish his invention, so as to give him an opportunity of dealing on more equal terms with the capitalist, by whose means he could bring it before the public?

Yes, I think it would.

2570. Do you think that six months would be a proper term for such provisional protection?

Yes, I think that is sufficient, generally.

2571. Do you think it would be desirable that some specification should be deposited at the same time that an application was made for a patent?

I think that would be extremely desirable.

2572. What changes would you subsequently allow in the specification before the patent was taken out?

I think that it is desirable not to allow the introduction of any new matter, but to allow a party to state that he had found that such and such things which might have been contemplated in his early specification were not proposed to be accomplished by his subsequent specification. I think it is very desirable that a patentee should not have the opportunity of introducing any really new matter.

2573. You would not allow him to alter or add to his specification, but you would allow him to omit unnecessary parts in that specification?

Yes; or to rectify any thing in the way of definition or explanation, so as to make it more exactly describe what he intended to do.

2574. Who should exercise the discretion as to the sufficiency of the first specification, and as to the subsequently proposed additional alterations?

It very much depends upon the arrangement under any new law as to the party before whom the patentees should come. I presume, as matters now stand, probably the Attorney or Solicitor-general would be the party.

2575. Do you think it would be desirable that they should receive any assistance from scientific persons in their previous examination of the specification on the application for a patent?

Yes, I think so.

2576. Should you wish the authority with whom the granting of patents should rest, to grant that patent only upon the novelty, or also upon the utility of the invention?

I think for either; both generally will be found to form features in inventions. It is scarcely possible to say how far a thing that is really novel will become

become useful at the outset ; if the thing be really novel, the probability is that the inventor has got some good reason to suppose that it would be useful also.

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2577. Do not you often find that inventors have what they think good reasons for believing that it will be useful, but that those reasons in many instances prove to be very much the reverse of good reasons ?

That is quite true.

2578. Do you think that the Attorney-general ought to have the power of dating a patent back from the time of the application ?

I think it is very desirable that protection should be given to the party from the time he puts in any specification.

2579. A witness, who was examined before this Committee, suggested, that it should not be a matter of discretion with the Attorney-general as to the dating back from the time of the application or not, but that when the specification was sufficiently full to require no further alteration, that then the Attorney-general should date the patent from that time ; and that in those cases where the specification required some alteration, the protection should be only given from the time of the second specification ?

I think it would be much safer for the patentee to have his invention protected from the time at which he made his application ; if it were evident, on the enrolment of the complete specification, that there was a decided dissimilarity, or a great variation, I think it should then rest with the Attorney-general to say whether or no he considered that it was really the invention in respect of which the application for the patent had been made. I think it would be desirable in all cases for the party to be protected from the moment at which he handed in the preliminary specification, and which might afterwards be found on investigation to be worthy of a patent, either from its novelty or its utility, or both.

2580. Is there not an objection to the present working of the caveat system ?
I think so.

2581. If the patentee were protected from the date of his application, would not some of the evils of the caveat system be introduced ; would he not be able, after he had given in his specification, so to amend it as to be able to make use of his provisional protection in order to obtain the secrets of other persons ?

If the person who had the charge of examining the complete specification should not be careful to see that the party did not exceed the bounds of his preliminary specification, no doubt there would be an opportunity for that party to insert something for which another person in the intermediate time had made application or put in practice ; and very much as to the mischief likely to arise in that case would depend upon the due execution of his duty by the officer to whom the examination of the final specification would be submitted.

2582. Are you of opinion that the opponent ought to give in, in writing, any statement of the grounds of his opposition ?

If, in the first instance, a preliminary specification be published, I think it is desirable that the opponent should then hand in a statement of the grounds on which he intends to oppose.

2583. Would you let the opponent have an opportunity of seeing the first specification before he hands in any statement in writing ?

I think you could scarcely avoid that. How is he to know that a patent has been applied for unless there be some announcement of the fact ; and how is he to know that the patent in question is likely to interfere with something which he has used, or is about to use, unless he is made aware of the nature of the invention ?

2584. Would it not be sufficient to advertise the titles of the inventions, instead of printing the specification at once ?

Perhaps if there were an advertisement, stating generally the nature of the invention, without giving the particulars of the preliminary specification, it might be more fair to the applicant for a patent ; because, if he should deliver a somewhat particular statement of the invention for which he was seeking letters patent, it might stimulate people to oppose him, and, if they got nothing more by it than knowing what he proposed to do, it would be scarcely fair to the patentee.

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2585. Would it be advisable to do away entirely with all opposition in the first stages, and to leave it entirely to the Attorney-general, or whatever officer was appointed, to consider the question of novelty solely, and without the assistance which he now derives from opposition being offered through the system of caveat?

I think not. I do not think that the Attorney or Solicitor-general can be expected to be sufficiently well informed upon the great variety of subjects which patentees bring before the public.

2586. Not if the assistance of scientific assessors are procured?

That would make a considerable difference.

2587. If the specification of all inventions for which letters patent have hitherto been granted were published, and so arranged that, by an index, they would be easy of access, do not you think that then the Attorney-general would be able to judge of the novelty of an invention in the case of a fresh application?

He would be much better able to judge of the novelty of an invention than he can now be under the present system; but still I do not think that his information could be expected to be so complete as to enable him to decide very accurately. Sometimes the Attorney-general is not in office for more than six or twelve months. If he were a stationary officer, I think that then a reference to such an index as your Lordship refers, combined with considerable experience, would enable him to decide without very much trouble, and with almost a certainty of coming to a right conclusion as to whether the thing were novel or not—novel, I mean so far as previous patents were concerned.

2588. Supposing that errors were to take place in granting letters patent for inventions which had already been patented, would not the defect be sufficiently remedied afterwards by the parties applying for redress in a court of law, if it could be proved that there had been an infringement of an already existing patent?

It would be much better for all parties that the applicant should be stopped at the outset.

2589. Do you think it fair to the public that you should give apparent rights to inventors, or persons stating themselves to be inventors, and to which they were not entitled, the only remedy on the part of the public being an application to the courts of law?

I think that that is a hardship upon the public.

2590. With regard to the colonies, do you think that a patent ought to extend to the colonies, as well as to the United Kingdom?

There are some reasons why it is desirable; but these rather affect general policy than particular patentees.

2591. It is one of the recommendations of the Inventors' Association, is it not, and you agree in it?

I think, on the whole, it may be advisable not to include the colonies, but to confine the grant to the United Kingdom.

2592. Do you think that the publication of a patent in a foreign country should disqualify the person introducing it from obtaining a patent in this country?

I think not absolutely. If the proper officer before whom the party went exercised his judgment as to the propriety of it, it might be safe to let the patent proceed.

2593. Upon what grounds would you justify the establishment of a patent right in this country over an invention which has been published already in another country?

Not so much for the sake of the patentee as for the advantage of the British public.

2594. The advantage arising from what?

From the party who had interested himself in the matter acquiring a knowledge of the invention; he might be the original inventor, and would introduce it to the public here, and very likely would spend much capital in its introduction, forcing it at the outset into use, to the decided advantage of the public afterwards.

2595. Do

2595. Do you think that the practical difficulties in the way of introducing inventions which may be well known abroad into this country, are sufficiently great to render it necessary to subject ourselves to the evils which necessarily attend patent laws, for the purpose of encouraging the introduction of those inventions?

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The fact is, in the case supposed, that the invention is not well known (I am supposing that a patent has been recently taken out abroad); it does not follow, by any means, either in this country or any other country, that the moment a patent is taken out, the public will adopt it.

2596. Do you consider that giving a person patent rights in this country for an invention which has been already published in a foreign country, would have a tendency to promote the earlier introduction of it into this country than if you gave him no such rights?

Yes.

2597. You are aware that it is contrary to the laws of other nations, and that in all other countries they consider the use and publication of an invention in any part of the world to be as prejudicial to an inventor as the use and publication of it in their own country?

I do not know how that may be; but, for the reasons I have stated, I think it is desirable not to preclude parties from taking out patents under such circumstances.

2598. You think that the interests of the country require that an inducement should be given to importers to bring over discoveries from abroad?

Yes.

2599. The importations of discoveries from abroad, although this country may be taken to be the greatest market in the world, does not take place without that kind of inducement?

Not in all cases.

2600. An experienced person like yourself might probably know instances of very useful inventions abroad having been long in use and practice, without being introduced into this country?

I do not know of any.

2601. Do not, throughout the manufacturing districts of this country, two feelings prevail, the one that of active curiosity with regard to the inventions that may be made in foreign countries, as bearing upon our manufacturing system, and the other, a feeling of great jealousy with regard to foreigners obtaining a knowledge of the most recent inventions made in this country?

With regard to the last part of the question, I think there is not a strong feeling of jealousy against foreigners; on the other hand, I think that, generally, the manufacturing interests have been very easy upon that point; and, so far as my observation has gone in Lancashire, the manufacturers there are disposed to show their machinery even to their rivals in trade.

2602. Do you think that the disposition to show their most recent improvements in machinery arises from any confidence on their parts that that machinery will not be imported into foreign countries unless the premium of a patent is given in those foreign countries to it?

There is nothing to prevent the exportation of any patented machinery to any foreign country, unless the laws of that country forbid the importation of it.

2603. In point of fact, there are no patent laws in foreign countries for the introduction of inventions made in other countries; unless a patent be taken out previously, the use of any invention in this country is considered a publication of it, and that would prevent a person obtaining a patent for it in any other country?

I believe it is so as regards France; after you have enrolled your specification here, and made it known in any printed publication, you cannot get a patent in France, but before publication you may do so.

2604. Is a manufacturer at Manchester very much alive to any inventions or any improvements that may take place at Glasgow, for instance?

Yes.

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2605. He

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2605. He is not so much alive to any invention that might take place at Paris or at Rouen ?

Yes, he would be ; but it happens, from the nature of circumstances as regards the great staple trades of this country, that there is little in France which they need to copy ; we are, rather, the leaders and pioneers in those trades.

2606. With regard to the United States, what is the feeling of the manufacturers ?

I think that there is a strong disposition on the part of all our manufacturers to ascertain what improvements take place there.

2607. If that curiosity exists, is it not sufficiently obvious that the great interest of manufacturers, who are pressed by competition, is to introduce new inventions that appear either in the United States or in France, and which are really useful, without having the disadvantage of paying for a license to do so ?

So much depends upon each particular case : some inventions, of course, affect a large branch of manufactures ; if it were a thing, such as the American throstle, which was brought over 20 years ago, and which seemed likely to effect a great revolution in spinning, and if it were known that such a machine existed there no doubt inquiry would be made, and the machine would be introduced into the trade in Lancashire ; but it often happens in relation to an invention of that kind, and would most certainly happen if you now enter upon a course of legislation in relation to patents, and cheapen them, that parties, the inventors of these machines in America and elsewhere, would take out patents, and so obtain protection here ; that is almost certain to be the case.

2608. It is not proposed to prevent an inventor taking out simultaneously a patent in this country with that which he takes out in his own, but not to allow an importer to receive that protection after the invention has been known and published in a foreign country ?

I have not paid much attention to that particular part of the question, but I can conceive, though it would be in exceptional cases, that it might be desirable to allow the party who would put the English public in possession of an useful invention, an opportunity of obtaining protection for it.

2609. With regard to the American throstle, and the competition going on between American manufacturers and English manufacturers, would it not have been an advantage to the English manufacturer, who no doubt would have introduced the invention into his business, to have been able to make use of that invention without paying a tax for doing so ?

No doubt it would have been an advantage to have obtained the same class of machinery without any additional expense.

2610. Do you think that the operation of the American law of patents has tended to give greater encouragement to invention than the English law ?

I think it has, and that it has stimulated invention to a considerable extent ; but I do not know whether the security of a patent in the United States is really so good as it is here.

2611. Are you aware of the system that is pursued in America with regard to patents ?

Not generally as regards the natives of that country, but so far as regards Englishmen, I know that if you want to take out a patent there, you must pay the same rate for that advantage which you would be charged here ; I do not know what their forms are.

2612. Is it your opinion, that if the present law was improved, it would be for the advantage of the public that some protection should be given to inventors ?

Yes, I think it would be decidedly for the advantage of the public, that protection should be given to parties. The fact is, as regards invention, that patentees are looking for the prizes, and perhaps not one in ten of these patents serves their purpose, but it serves the purpose of the public.

2613. You think that it is not so much to the advantage of the inventor, as to the advantage of the public ?

Yes ; a great many inventions that have been brought to light in the earlier period

period of the cotton manufacture, would probably not have been introduced to the public at all, if it had not been for the strong inducement arising from the belief that large advantages would result to the individual, and he has been encouraged to go on with his improvements, hoping against hope sometimes.

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2614. As far as the inventor is concerned, you think it has been a factitious encouragement?

He has been buoyed up by hopes which have not been realized.

2615. You think that he has been stimulated to invent, and to discover his inventions in a way which he would not have done if this system had not existed?

Yes; the fame of being an inventor is to many persons very much what honours are to the army; it is the prize after which they press, and they bestow much more labour, time and expense in the pursuit than the things produced are really worth, but they are led on by the hope of success.

2616. Do you think that any public inconvenience arises from the facility with which patents are obtained, and the consequent number of patents that remain, as it may be said, dormant?

Yes, there is, I conceive, an evil there.

2617. Is there not a class of men who may be called patent-mongers, who buy up inventions, not so much with the view of making them practically useful, as of obtaining money from those who have made similar inventions, for permission to make use of those inventions?

I do not think that that system can have extended far; there may be some cases of that kind; it not unfrequently happens that people largely embarked in any patent speculation, go on buying everything they can of the same class, with a view to protect what they already have.

2618. Is it ever the case, do you think, that an inventor has an invention for which he obtains a patent, and that improvements suggest themselves to him in the working of that patent, which he does not immediately introduce, because it will give him the means of obtaining a further patent at the conclusion of the first?

That is very possible.

2619. In that case there would not be an incentive to improvement?

After he had obtained a patent, he might see his way to a further improvement; that improvement would arise from the fact of his having a patent already; he has a patent for something which he finds useful, and he discovers, in the course of his experiments, something that is likely to be an improvement upon what he has already patented, and he would then consider whether he should at once proceed to take out a new patent embodying this improvement, or whether he is already sufficiently protected against the rest of the public, by his former specification; he would, then, unless he feared that somebody would take hold of his idea, defer taking out a second patent to the last moment, and if he took 14 years out of the one patent, he would get 14 years out of the other.

2620. Does that practically happen often?

I should think not very often. If I had a patent in which I discovered a considerable improvement, say after the lapse of seven years from its date, I should feel disposed to take out my patent soon, because I should have no guarantee that somebody else would not take out a patent for the same thing, as, although he could not supersede the use of my first patent, yet the moment that patent expired he would take advantage of both, and he would have the improvement secured in addition to the use of the first invention.

2621. On the other hand, the first invention very often is an invention towards which many other people are tending, but the patentee happens to be first in the field?

Yes, that is sometimes the case.

2622. Would there not be in a case where a man had an invention that was useful to him in his manufacture, but for which he was not protected, a strong inducement for him to introduce every possible improvement into it, in order to get rid of his competitors?

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He would, for his own sake, go on continually improving : but there are many people who use machinery to the best advantage, who never invent anything, but are indebted to inventors for their improved machinery ; they exercise their judgment in the use of it ; and it often happens that a man who has not the slightest creative faculty or inventive talent, will make the best profitable use of such machinery, and even make a fortune out of it, while the patentee is himself in poverty. Therefore you would not get the advantage desired, unless, simultaneously with a wish to adopt every improvement, you have a set of people who are engaged in improving.

2623. Do you think that an inventor ought to be allowed to include several inventions in one patent ?

Certainly not, if you reduce the price. It not unfrequently happens that a person hits upon an idea, and he says, " Well, it is not worth while to take out a patent for this ; I will wait till something else turns up ;" and he then endeavours to incorporate two or more inventions in the same patent, which he may do, if he makes his title wide enough. I have met with some instances of that nature ; and indeed I myself have had one or two things of that kind.

2624. Even under the expensive system of patents, the actual taking out of a patent is not the whole cost to an inventor, is it ?

By no means. I have a specimen of cloth on the adjacent table. The expense of the patent and specification of course was much as usual ; but then the difficulties in connexion with working it out, have been considerable ; and up to the present time I am perhaps 2,000 *l.* or 3,000 *l.* out of pocket.

2625. Were those 2,000 *l.* or 3,000 *l.* merely for the machinery required, or do you take into account the money and the time lost ?

The time on the part of the agents, the misapplication of first efforts, the using sometimes a material that is not of the best class for the particular purpose ; the not making a perfect article, by reason of inexperience, and then the rejection of it for some particular cause, which can only be discovered by actual use or wear.

2626. Those expenses are not the result of the patent law, but merely the natural expenses of putting a new discovery into use, are they not ?

Exactly ; but without the protection afforded to a party by a patent, be he inventor or capitalist, he would be little disposed in many cases to incur all that expenditure, and to encounter one difficulty after another, till he succeeded in accomplishing his object.

2627. You really think that the patent law serves also as a means for bringing a useful discovery into use ?

Yes.

2628. Supposing that there were no patents at all, although the same number of discoveries was made, those discoveries, without the protection of patents, would not be brought into use, would they ?

Just so.

2629. Do you think that the art of printing, for instance, would have been brought into more early use if the invention had been patented ?

It is scarcely possible to say ; but probably some improvements in the art of printing would not have been brought into use, if it had not been for the hope of reward to the inventors. I believe that there are several patents connected with printing presses ; but as regards the original idea, that of using letters in printing, one can scarcely suppose that any person at that time could form a just estimate of the advantage derivable from it, and possibly in the country, and at the time in which the inventor lived, he might have no means of obtaining protection.

2630. Do you imagine that many useful discoveries have been made and lost in consequence of the lapse of time ?

Yes.

2631. Do you imagine that those discoveries made and lost were more numerous when patent laws did not exist, or since the patent laws have existed ?

I should

I should think relatively, that is, in proportion to the number of inventions, more would be lost prior to the existence of the patent laws than since. *J. P. B. Westhead Esq., M. P.*

2632. Can you compare the two states of society?
Scarcely.

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2633. Do you consider that the patent laws act as an incentive to invention?
Yes.

2634. Are there more inventions in consequence of the patent laws than there would be without them?

Yes; I remember when I was a young man, and much interested in mechanics, that I thought it as great a distinction to be a patentee or inventor, as I should now to be promoted to the peerage. That sort of feeling exists, I think, on the part of a great many persons who are brought up in connexion with machinists and in manufacturing districts.

2635. Do you think that that feeling was produced more by the desire of having an exclusive privilege, than merely by the honour of being the inventor of such and such a discovery?

I think it would operate upon the minds of many inventors, with the hope of securing wealth rather than fame.

2636. That feeling you state existed in your mind as a young man, in common with many other persons of an ingenious turn of mind; would not it operate, even under a free system, to make you, if you did invent something, discover it to the world?

Yes; but much depends upon the class of mind.

2637. Would there be a large class of inventors, either scientific, manufacturing or workmen, who, having made an invention, would keep it a profound secret to themselves?

There is great difficulty in keeping secrets now-a-days in connexion with manufactures; but the old system was based almost entirely upon keeping everything secret; apprentices were indentured to be taught the craft and mystery of a particular trade.

2638. In your present business, if an invention struck you which enabled you to make cloth much more cheaply and much better, and you were convinced that you could keep it a perfect secret from the rest of the world, would it not be more to your interest now to keep it secret, than to take out a patent?

No doubt, if I could really rely upon keeping it secret for an extended time.

2639. Practically it is almost impossible to use an invention, and keep it a secret, is it not?

It is not easy; but I have known cases in which parties have kept their processes secret for several years.

2640. In cases even where it is possible, do not you think that the love of fame, and the love of a small benefit in almost every instance, from being able to communicate a useful invention, would induce persons to make known their discoveries?

It would no doubt affect some persons; but it would not operate generally upon the majority of inventors.

2641. In all those discoveries that have been made, astronomical or otherwise, are there many instances of people who, having made them, have kept them perfectly secret?

Not many, I believe, in relation to the higher departments of science.

2642. Are not those discoveries made by persons of a higher class, and with greater objects, than the persons by whom ordinary inventions are made?

Yes; there are some minds that never can be compensated for their efforts by pecuniary reward; they look for fame; Sir Humphrey Davy and Sir Isaac Newton were stimulated by the love of science and of fame; money had comparatively little charm for them.

2643. Would not a much poorer or a much less educated man be desirous of obtaining the approbation of his fellow men, if there were no positive inducement to keep his invention secret?

(77. 14.)

x x 3

Yes;

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Yes; but nearly all men who are connected with communities where the object of living seems almost to be that of making money, fall into that vein of feeling, and whenever they are stimulated, it is with the hope of acquiring money.

2644. Though the love of fame might stimulate some men to exert themselves, do not you think also that the expectation and hope of deriving some beneficial interest would operate as a great additional incentive to exert themselves to perfect an invention?

Yes, certainly I do; as to disclosing an invention, that would entirely depend upon the feeling of the party. With regard to Crompton, who was the inventor of the mule, he was most anxious to have kept his invention to himself, and would have been content to work it in his own garret; but the fact that he made so much better yarn than any body else, induced inquiries, and he found it impossible to conceal from the world the fact that he had an improved machine. He had no patent, but was ultimately rewarded by a Parliamentary grant of 5,000 l.

2645. That was invented not under the stimulus of a patent?

No, nor yet for fame. He invented it to manufacture yarn in a superior manner, with the intention of maintaining himself.

2646. He invented it in order to improve the manufacture in which he was engaged, and not with the hope of obtaining a patent?

Just so. It may be, perhaps, that he was not in a situation to command the means of obtaining a patent.

2647. Is not the case you have quoted, of Crompton, a single instance of a great class of cases, namely, of persons who make inventions, the immediate inducement being the desire of assisting themselves in overcoming practical difficulties in their own works; all the other considerations of fame and direct pecuniary benefit by the sale of the invention to be used by others being subsidiary considerations, and subordinate to the main one?

It very much depends upon the position of the party making the invention. Of course if a manufacturer be engaged in a large branch of manufacture, say in the cotton manufacture, he naturally desires to improve his business, to increase his means of production, and to improve the article; and if he be a man of intelligence he will, no doubt, adopt measures which conduce to that end. Of course, if no protection were awarded him, he must be content to receive the immediate advantage derivable from the improved products in his own manufactures. But he must be aware of this, that scarcely could he have accomplished those improvements; before his neighbour would be placed upon a par with him, by becoming familiar with them; therefore, such a party would desire to be protected if the law admitted of it. Then there is another class of persons who are struck with ideas, perhaps accidentally, and who have no immediate interest in any manufacturing establishment. They conceive an idea, they revolve it in their minds, and having experimented upon it, they come to a manufacturer or capitalist, if they have not the means themselves, and ask him to assist them in securing a patent, in which they give him a share. Now, these men, without the inducement of a patent, would perhaps do no more than entertain the idea for a time, and so no practical result would follow.

2648. Do you think, in framing any new law upon the subject of patent rights, that it is essential to take measures to guard against a number of useless patents?

Yes.

2649. Should those measures be directed against the original creation of useless patents, or should they be directed to the rapid elimination of them from the statute book?

I do not think that, generally, patentees are remunerated for their cost, speaking of the larger number of them. I think that there are few patents which afford a large remuneration to the patentees before the term of 14 years has expired. I do not think it desirable to limit the number of patents, by shortening the term of the grant; but I think it very desirable that the public should not be annoyed by having the use of any thing prohibited, as it were, by law, when there is no justifiable foundation for a patent.

2650. What

2650. What measure would you suggest for protecting the public against that evil ? *J. P. B. Westhead, Esq., M. P.*

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There are two things which would conduce greatly to that end ; first, the publication of all past specifications. I have heard of cases in which parties have applied for patents, and obtained them. They have lodged their specifications, and put an invention to work, and they have ultimately discovered that the very thing they had patented, and brought into beneficial use, was the subject of a former patent. All the particulars existed in our almost inaccessible records. That is a disadvantage to the public. The public ought to have the advantage of a book of patents, and then it would afford to a great many parties, quite honest in their intention, an opportunity of ascertaining that what they are about to patent had really been invented before ; thus it would save them a great deal of useless expenditure and loss of time, and their energies might take another direction. Then, as respects the limiting of the number of patents, that should be done, I think, by the investigation that is proposed to take place.

2651. Is that proposed investigation to have reference to the merits and value, as well as to the originality and novelty ?

I scarcely think it would be safe to leave the question of merits to any officer under such circumstances.

2652. Or to any Board, however composed, even though it were composed of scientific men ?

I scarcely think it would be agreeable to the inventive part of the public ; but it would be very desirable if, on the specification being examined by scientific men, and found to contain no novelty, that they should say to the applicant, " This has not been previously patented ; but if you refer to such a work, or if you have any acquaintance with such a class of manufactures, you will find that this is not a new thing." The patentee would then very likely say at once, " I will retire."

2653. Do you think that a provision that would require an additional payment to be made a short time after the patents had been granted, would tend to put an end to useless and valueless patents ?

Very much so.

2654. You see no objection to that system ?

No ; I think that that would be a very effective but quiet mode of extinguishing many of those patents.

2655. You would not grant a patent for an invention that was not absolutely novel and original, although no absolute patent in print might be in existence for the same invention ?

I should scarcely be disposed to say if in print only, because what the legislature ought to look at in this case is the advantage of the public ; and the mere fact of the thing being recorded in print, does not give the public the advantage of it.

2656. But the test of its originality would be its existence in the record of specifications, would it not ?

Not altogether so, because it might happen that the invention was in use, though not patented. Suppose I were connected with spinning, or any other manufacture, and that I applied for a patent, and put in a provisional specification which affected another man's manufactures, and he supposed that there was an intention to take out a patent for what he had already in use, it is to be presumed that he would take care of his own interest, and probably would furnish evidence that would induce the officer, or the parties examining, to say to me, " It is quite clear that this is no novelty."

2657. Then due public notice should be given of intention to apply for any particular patent ?

Yes, I wish to mention that it is felt as a hardship by inventors, that at present the Boards of Admiralty and Ordnance do not pay them for the use of their inventions. At all events there is great difficulty in obtaining the same measure of remuneration from them which they would obtain from the public. In some cases the Admiralty have paid, and in others they have declined to pay : and I think

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think if the law is now to be dealt with extensively, it would be well that some tribunal should be nominated, who should have the power of deciding what a fair remuneration should be in each case.

2658. There are some inventions, are there not, which are chiefly applicable in some of the Government departments ?

Yes, exactly. I have the particulars of a case in reference to steam navigation ; I refer to the screw propeller.

2659. Is it the fact that the Crown grants any patents with any reservations which it is advised to introduce ?

I am not aware whether they differ from time to time, or whether they run in one particular form.

Mr. *Webster*. It is in one particular form.

2660. (To Mr. *Westhead*.) Is there any particular point upon which you wish to make any further observations in connexion with the patent law ?

Yes ; I think it desirable that it should be distinctly understood whether or no the Crown, in any department of the Government, is liable for the payment of patent rights.

2661. What is the hardship you complain of ?

It has reference, as I just now said, to patents which have been taken out for propelling ships by screw propellers. A large number of vessels have been furnished with patent screws by the Admiralty. The whole amount of horse-power applied to such screws by the Admiralty is upwards of 12,500 horse-power. The Admiralty have paid at the rate of 2 *l.* per horse-power for the patent right on 2,420 horse-power, and they decline to pay upon the remainder.

2662. On what ground do they decline to pay the additional amount ?

I can scarcely say ; there are various grounds ; sometimes that the Crown is not liable, sometimes that they have no certainty that the parties who claim under these patents are the only parties who can claim for them, or are the right parties ; so that in regard to these particular inventions, of which there are several, and which are undoubtedly used by the Admiralty, and have cost the inventors, in cases which are decidedly within my own knowledge, no less a sum than 56,000 *l.* ; the whole sum that they have as yet received from the Admiralty amounts to about 4,840 *l.*

2663. Upon what ground do the Admiralty give a compensation for 2,420 horse-power, and not give compensation for the remaining 10,000 which you say they employ ?

I do not know.

2664. Is the same invention used in both cases ?

Yes.

2665. Have not the inventors, in those cases, the power of proceeding against the Admiralty for using a patent article without the permission of the patentee ?

I think not, without the permission of the Crown.

2666. How is it that the permission of the Crown is required, before you can proceed against the Admiralty in the case supposed ?

I am not aware.

2667. Is there any other point which you have to observe upon ?

Another point which has been brought to my notice by parties interested in patents, is the question of an extension beyond the term of 14 years, as is now usual, on the assent of the Privy Council.

Mr. *Webster*. The usual term was seven years ; there may be a second term of 14 years, but there have been only two cases of extension for 14 years ; generally it is about five.

Mr. *Westhead*. The complaint of the parties is, that on appearing before the Privy Council, and obtaining an extension of a patent, on the ground that they have not already received sufficient remuneration, they are put to all the expense of fees, just as though they were taking out a new patent ; and they suggest, that on the enrolment of the decision of the Privy Council in favour of a prolongation.

prolongation of any grant, the patent ought to run on without the payment of any additional fees.

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Esq., M. P.*

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The Witness withdraws.

MATTHEW DAVENPORT HILL, Esquire, Q. C., is called in, and further examined, as follows :

*M. D. Hill, Esq.,
Q. C.*

2668. YOU have heard the last witness state the hardship which he conceives to be felt by inventors, from the fact, that the Admiralty and Ordnance Offices do not, in all cases, recognize the right of a patentee to receive remuneration from them for the use of his patent; have you any observations to make?

Perhaps your Lordships will allow me to state, very shortly, the law as it stands upon that subject: your Lordships are aware that the Crown is not bound, in law, to grant a patent to any person for a new invention, however valuable; and it is a consequence of the power to withhold a patent altogether, that the Crown may make a grant, subject to such qualifications as it deems right, and those qualifications are introduced into each patent according to the discretion of the Attorney-general for the time being; and though a general form is in use, yet that form is changed from time to time. Now, in the form which is in use at the present day, there is this proviso, "That a patent shall be void if the patentee shall not supply, or cause to be supplied for Our service [*i. e.* for the service of the Crown] all such articles of the said invention as he shall be required to supply, by the Officers or Commissioners administering the department of Our service, for the use of which the same shall be required, in such manner, at such price, and at and upon such reasonable prices and terms as shall be settled for that purpose by the said Officers or Commissioners so requiring the same."

2669. Then if such a clause, or a similar clause, was not introduced into a patent, those offices would be liable in the same manner as any other trading company would be liable to a patentee?

Exactly so; they are required to pay a reasonable allowance for the patent right, but they themselves are permitted to assess that remuneration.

2670. Do you see any objection to that power which is retained by the Crown for making such reservations?

It is a question of experience; if in the course of the great number of years which have elapsed it has not been abused, I should be for retaining it; whether it has been abused or not is more than I can say. While I am on the subject of provisos, if the Committee will permit me, I will call their attention to one against which I have a very strong opinion, and that is the limitation which is contained in all patents of the number of persons who may be interested in the patent, which is now 12; before the time of Lord Denman becoming Attorney-general, it was five; when it began to be five, I really do not know, but I think it was almost as soon as the statute of James had passed; I cannot myself see any reason for a limitation, or for any interference with that kind of property as to its subdivision.

2671. What is the argument usually adduced in favour of that limitation?

It is supposed that persons will congregate in numbers, and thus, by their united influence, and their united capital, gain some advantage over persons trading singly; it is a part of the class of objections which belonged to the notions of political economy that were prevalent in the reign of James I., but which are not received at the present time.

2672. Is it supposed that so large and powerful a body would take advantage of having the monopoly of an invention to refuse to grant licenses to any other manufacturer, and obtain the sole monopoly of the manufacture in which they are engaged for the term of years during which the protection lasts?

Perhaps it may be supposed so.

(77. 14.)

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2673. You

M. D. Hill, Esq.,

Q. C.

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2673. You think that there ought to be no restriction?

None at all; and I believe that the Legislature practically acts upon that view, at least in many instances, because it is in the habit of passing private Acts to allow joint-stock companies to purchase patents, notwithstanding this clause, as in the case of the Telegraph Company, and in the case of Price's Candle Company, which passed the Legislature during the present Session, and so forth. But I must ask your Lordships' permission to add one suggestion; that with regard to this class of questions, a very important one for your Lordships' consideration will arise, and it is this: whether you will, by an Act of Parliament, interfere with the power of the Crown in putting those qualifications, or any qualifications which it may deem right, into patents, or whether your Lordships will think that the rights of the public would be sufficiently guarded, and the convenience of the public service also consulted, by expressing some opinion in any Report which you may choose to make upon this subject, as to the manner in which a discretion should be exercised, without absolutely putting a bar upon the exercise of that discretion.

2674. Is there any other point connected with the evidence that you were good enough to give on the last occasion, which you are now able to suggest to the Committee?

On the subject of patents for imported inventions operating as a bounty to capitalists to divert their capital into particular channels, I would observe, that it appears to me that the effect of granting patents, either for inventions made in England, or for imported inventions, has necessarily that effect which it is suggested may follow from granting a patent for imported inventions, and that there is no peculiar consequence arising out of the fact of an invention being imported. Take, for instance, the example of Watt's steam-engine. It is well known that Bolton expended many thousands of pounds in perfecting Watt's invention, and forcing it into general use. Now that was a diversion of capital from Bolton's trade, which had nothing to do with steam-engines, and an appropriation of capital which he would not have made, but that Watt was enabled to endow him with an exclusive privilege. It appears to me, as I said upon the former occasion, that the services of capitalist tradesmen are exceedingly important for the purpose of bringing a new invention into use; and that with regard to that capital, whether it is employed upon a home-made invention or an imported invention, the prize of an exclusive privilege is the stimulus which diverts capital into one channel, which would otherwise have flowed in a different direction. And I may be permitted to add, that it appears to me that the principle is even more broad than I have yet stated it. I should say, that wherever an artificial motive is given, of whatever nature it may happen to be, there that same effect takes place, that is to say, diversion of capital following that artificial stimulus, which is, in other words, an artificial diversion of capital. When the Commissioners of the present Exhibition offered prizes, they offered a stimulus for artificers to employ their time and their money, that is to say, their capital, in producing some article in a degree of perfection, which the ordinary demands of trade, it was supposed, would not otherwise have produced. I will trouble the Committee with this further illustration: your Lordships are aware, that in the early part of the last century, about 1714, an Act passed, establishing the Board of Longitude, and giving authority to that Board to offer several prizes (the largest being 20,000*l.*) for a mode of finding the longitude within certain given limits. That prize stimulated, as we all know, Mr. Harrison to almost a life's labour, a labour of 30 years and more, in producing his chronometer, for which he obtained, eventually, the 20,000*l.* prize. There then was an artificial diversion of capital, but it is one which has never been condemned. I would respectfully suggest that the true distinction will probably be found to lie here. It would be contrary to the just principles of commerce if the artificial stimulus were to continue permanently; but that if it is only applied for a short time, or upon one or two occasions, and then (the article having been produced, and a market created) matters are left to find their own course according to the ordinary laws of demand and supply, in that case there is nothing done which is really opposed to the true principles of commerce. I would beg permission to offer another illustration: possibly some of the noble Lords at this table may have been members of a society which was founded by Lord Brougham in the year 1826, called "The Society for the Diffusion of Useful Knowledge." I was a member of it from
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the first, and I know that at the time to which I refer, it was not credited by the booksellers and publishers that there was so great a desire in the minds of a very large class of the working population of this country for literature suited to their wants, as it afterwards turned out, actually existed. Whoever is acquainted with the state of books for the people at that time, knows that an inquiring man who had not had the advantage of a regular education, could not find books suited to his purpose. The Society attempted, and with some success, to supply this demand for popular literature, and in a very few years its very success made its further existence unnecessary; that success proved, to the satisfaction of the booksellers, that there was a large market to be supplied, and then, actuated by the ordinary motives of commercial men, they entered and supplied the market. The Society then suspended its operations, and has never been called upon to recommence them. I appeal to these facts, for the purpose of showing that it may require an artificial stimulus to institute commercial experiments, which, when they are made, show that there was a demand for the article, which might have been profitably supplied in the ordinary course of trade, if an individual or a firm had had sufficient capital, commercial courage and sagacity to explore it for themselves. But inasmuch as if any private person had tried the experiment, he would have had to bear the whole of the expense if it failed, and, on the other hand, if it succeeded, he would be immediately elbowed by a crowd of competitors, it appears to me that it must be almost obvious that there are and must be many channels for profit which are not opened, simply because there is no sufficient stimulus to try the first experiment.

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Q. C.*

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2675. I presume that you will agree with me that the general result of the increasing observation and intelligence of mankind is, that of being more and more cautious as to the application of the principle of bounties?

Entirely so; and I will add, that it lies upon those who advocate any particular bounty to take the burden of proof upon themselves, and to make out a very strong case.

2676. As to clause 13, you were good enough to say, that you would consider how it could be improved?

I have considered it, and I have had the advantage of a conference with my friend, Mr. Webster, on the subject; and I believe I state his opinion, as well as my own, when I say, that the principle of the clause seems to us to be very excellent, but it is capable of some improvements in its form; we think that the legal operation of the clause would be what I ventured to suggest, namely, that a patentee might have a patent for six months, which would enable him to bring his action for any invasion of that patent during the six months; when afterwards, upon good grounds, his patent might be disallowed, and upon such grounds as would show that it ought never to have existed; and then there would be an anomaly, which I ventured to suggest to your Lordships, that of there being an absolute right created for that six months, which subsequent examination showed ought not to have existed at all. One of your Lordships was then kind enough to refer me to the late Act for the Registration of Designs, the Act of 1851, and asked my opinion whether I should be satisfied with the corresponding clauses of that Act. Your Lordships will see, by looking at that Act, that it will have this legal effect, that, during the term of the provisional registration the public can have no benefit of the invention at all, because the patentee is precluded from using his invention for practical purposes, on the one hand, while, on the other hand, all strangers can only use it by incurring the penalties of piracy. It is a matter of very much difficulty to settle the true principle, as it appears to me, and my own mind has vibrated upon the subject; but I feel inclined to adopt the opinion of Mr. Webster, which is this, not to go any further than to protect the publication during the provisional period, from having the effect of precluding the inventor from taking out a patent at all.

2677. You would not let him use it as it is laid down in the 13th Clause?

Yes; that would not prevent him using his own invention, nor would it prevent any one else from using his invention during the provisional period. I was once of opinion that it might be well to permit the use of the invention by the patentee, and to prohibit all others during that period; but I think there wants a stimulus upon the patentee to come as soon as possible and complete his patent; and I think that that stimulus would be afforded, and the whole principle of the patent

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law would be better preserved by saying, "You shall not have your exclusive privilege, until you have fully and completely shown that you ought to possess it. Shorten the period of probation as much as you can, and come as soon as you can; and if you say it is a hardship upon you, that for some space of time the public should avail themselves of your invention without paying you, the answer is, first, that it will furnish a motive to you to shorten the time; but, secondly, that, after all, the injury to you will not be very great, and will be in some degree compensated by their doing that which every patentee has to do for himself, namely, creating a market." Therefore, I do not know that the inconvenience would be greater than would be necessary to furnish the required stimulus.

2678. Do not you think that the fact of allowing the public, as it were, to infringe by anticipation a patent, would encourage litigation, as it would be much more difficult, when once they have begun to infringe it, to stop that infringement, than it would be to prevent an individual entering into that sort of manufacture at all?

I think it is very possible that some effect of the kind, to a very slight degree, might be produced; but I think that the degree can only be slight, and for this reason: that if any considerable outlay were required, the stranger, the invader, so to speak, would feel that he would have but a very short time to exercise this trade, and it would be very questionable in the majority of cases whether it would be worth his while to go into it at all.

2679. How would you carry that system into effect without a more detailed specification, in the first instance, than was contemplated for the purpose of that provisional protection?

I always contemplated the first part of the specification, which is in use now, being completely given, that first part being a description of the nature of the invention; and the part which I contemplated as being postponed was the second part of the existing specification, which contains a minute account of how the invention is to be carried into effect.

2680. Many inventions, deriving their principal value from those details, consisting of improvements in a number of processes, how would you give a provisional protection upon a mere general description, and at the same time make it such as to prevent the possibility of questions arising afterwards, as to whether the details finally entered at the time of taking out the patent were really a description of the inventor's discovery, or were not borrowed from people who had used the invention in the meantime?

I do not contemplate, in the case of an invention which is an improvement upon a former invention, that the first part of the specification is or ought to be a mere general description; it ought to distinguish, with particularity, that which is old from that which is new. In practice, we find that, inasmuch as the whole specification is drawn together at the same time, the boundaries of the two parts are not carefully preserved. The specifier does not attempt to distinguish between the first and second part, but the two are huddled together. But when they are two distinct instruments, as I propose they shall be, then each having its distinct function, the one to explain and define the invention, and the other to show how that invention is to be carried into effect, I apprehend that the first instrument would have as much particularity as is called for by the circumstances of each particular case.

2681. Suppose the case to which allusion was made in the last question, that an inventor applies for a provisional protection, and gives in such a description as is necessary for that purpose according to your proposal, that then, during the six months, other parties make a trial of this invention, and in the course of their experiments they hit upon certain improvements which were not in the original design of the applicant, but which evidently give it much greater value; how would it be possible to determine, at the close of that period, whether those improvements really belonged to the first applicant, or to those who had used his invention; he would, of course, claim them when he put in his ultimate specification?

I should apprehend that in each particular case it would be found possible to do it; but if it were not, my answer would be, that matters would remain not worse, but just in the same state that they are now. A complete specification is now put in after the patent has been granted for six months, and we know that,

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in point of fact, though of course it is guarded against as much as it can be guarded against, yet, as the law now stands, there is every reason to believe that patentees do avail themselves of the inventions of other people, and that the specification contains matters which have come to the knowledge of the patentee after his patent has been applied for.

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2682. That occurs under the present system, which prohibits the use of an invention during the provisional period by other parties; would not that difficulty be increased by removing that prohibition, and allowing inventions to be used during that period?

I do not see that the circumstance of the user has much to do with the matter, or that it increases or lessens the difficulty.

2683. If the practice prevailed of adopting inventions that have been merely secured in the first instance, without being specified, questions of that kind might arise much more frequently, might they not?

I will endeavour to explain more clearly what it is that Mr. Webster and I contemplate in this case. Your Lordship is aware that now, if before the granting of the patent, either by the act of the inventor, or against his will, there is a publication of the invention, his right to the exclusive privilege is gone, that occasions very great inconvenience, and it puts the inventor in very great peril, as it is very difficult for him to keep his secret, and it moreover prevents him from taking his invention to the market, and selling it to a capitalist. We have, therefore, in the remedy that we have attempted to devise, been careful, as far as we could, to remove the evil, but not to carry the remedy beyond the necessity of the case. It seems to be clear that all that is wanted is, that after a patentee has made his application for a patent, the publication of his invention should not deprive him of the right to complete the patent. I am perfectly aware that to do justice among so many conflicting interests is a matter of difficulty, perhaps one of the greatest belonging to the framing of a good patent law; but it appears to me to be a difficulty that must be encountered.

2684. Under your recommendation anybody would have the power to use this invention during the six months that a person was provisionally protected; but at the termination of those six months, if he proceeded to take out his letters patent, the right of use by all others but the patentee would cease to exist?

Yes.

Mr. *Webster*. Then if others used it, it would show to the patentee that it was valuable, and he would get his patent at once; if from anybody else using it, or from its being the opinion of scientific men that it was a valuable invention, and his being able to show that it was provisionally protected, he would get his patent at once, and the mischief would be put an end to.

2685. (To Mr. *Hill*.) Do you contemplate, when he deposits at first his petition, that he is to deposit with it such a specification as could be used by an ordinary working man?

No. If the Committee will permit me, I will read a passage in the patent which regards the specification, to show that it is composed of two independent parts. "Also that, if the said A. B. (the patentee) shall not particularly describe and ascertain the nature of his invention;" that is one branch: "and in what manner the same is to be performed," which is the second branch: "by an instrument in writing under his hand and seal," &c. Now, I propose that upon an application he should particularly describe and ascertain the nature of his invention, by an instrument in writing under his hand and seal, &c.

2686. Leaving the manner in which the same is to be performed till he obtain his letters patent?

Yes; and then I think I might meet the objection which has been advanced in this way. It is proposed that all those instruments shall be under the control of some tribunal, an officer or a Board; and a practised tribunal would see whether the description was sufficiently particular to prevent an inventor from availing himself of subsequent inventions or improvements, or whether it was framed in a manner so fraudulent as to enable an inventor so to avail himself of them. A practised eye would soon note those distinctions, and thus I think the evil, which I have no doubt, if it were not guarded against, would be found to be very great, as it is now found to be great, would be avoided.

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2687. A former witness stated that he thought a specification should be required upon an application for a patent, setting forth the principle of the invention, and the nature of the invention, but not necessarily going into all those details of its operation which are now required for the completion of the patent ; does that correspond, as far as you are able to judge, with your views of the specification which you have been describing ?

It does. The description of the witness's answer, contained in the question of the noble Lord, enables me to say that we must agree.

2688. Is there any additional information which you can give to the Committee ?

I have not touched at all upon the expense of patents ; I think that, provided means are given of making the public acquainted with claims for patents, and if the Committee should adopt the suggestion which I made as to giving the improver a compulsory right, to be settled by arbitration or a jury, of purchasing the privilege of using the invention upon which his improvement is founded, and also, *e converso*, granting the original inventor a compulsory power of purchasing the privilege of using the invention of the improver, that under those circumstances, and if a plan be adopted of a graduating scale of payments, for the purpose of eliminating useless patents, so that they may not be there as traps, as it were, to inventors, all reason for making patents expensive by way of protection to the public would be at an end. And it therefore would appear to me that the principle of the expense of a patent would resolve itself into this : what is sufficient to support the necessary expenses belonging to the tribunal which has been suggested, and to the publication which has been suggested ; and then it would have to be recollected, that a patent, which is an article of sale by the Government, and of purchase by the inventor, must obey the great law of commerce, which provides that every decrease in price is followed by an increase in demand, and *vice versa* ; and having regard to this law, it would probably follow, that the proceeds of a low rate of charge will be sufficient to meet the requisite expenses. But, on the other hand, as it is always much more acceptable to the public that rates should fall than rise, it might be very prudent to put it a little higher than it was supposed would be ultimately the rate adopted. I have before me a Report which was made by a Committee of the Society for the Amendment of the Law upon the Improvement of the Patent Law ; and in this Report there is, at page 25, a proposal for an annual payment, increasing in a geometric ratio from year to year, for the purpose of giving what the reporters call a natural termination to patents ; so that a patentee may continue his patent as long as he can afford to make those payments, with a view of allowing patents, which are very profitable, and which are therefore supposed to be very useful to the public, to remain longer for the remuneration of inventors than patents which are not so profitable ; and I am inclined, without any very decided opinion, to adopt the view contained in that Report. There is another point which I would submit to the Committee, and that is as to the propriety of making a patent unimpeachable after a certain period. At present this is the course of things : the public lie by till a patent becomes profitable, and until all the outlay necessary to create a market has been made ; and then, in proportion as it is profitable, which may roughly be estimated to be in the proportion to which it is useful to the public, it is attacked ; and it very often happens that the attacks multiply with the age of the patent, and that it is litigated up to its very expiration. There is a notorious instance which will be given to you, if your Lordships please to call for the evidence, in the case of Mr. Muntz, the Member for Birmingham, who made a most important invention ; namely, metal for sheathing ships, an alloy of copper and zinc, which is not only cheaper than copper, but which oxydizes so slowly, that it is very much more permanent. I was counsel for Mr. Muntz. I speak from memory, when I say that at one time he had seven suits upon his hands, including those at common law and in equity ; and he did not get rid of this mass of litigation till within two years, or within two years and a half or three years before the expiration of his patent. Now, I believe, thoroughly, that inventors would gladly compound for a shorter term of patent right, if after a certain time of probation, their patent was unimpeachable ; say the public should have a right to impeach their patents for two or three years after the patents had been granted, but that then it should not be open to do so : the only question, after that period, would be, whether, in a particular case, it had been invaded,

invaded, or had not been invaded ; whether a piracy or not had been committed. Now, in every case in which a patentee attacks his adversary for a piracy, the adversary retorts, " Your patent is invalid ;" and there is no case that I have ever heard of, in the whole course of my practice, in which the defendant confined himself to the issue, whether a patent was invaded or not.

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The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Tuesday, the 17th instant,
Twelve o'clock.

Die Martis, 17^o Junii 1851.

THE EARL GRANVILLE, in the Chair.

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

J. H. Lloyd, Esq.

17th June 1851.

JOHN HORATIO LLOYD, Esquire, is called in, and examined as follows :

2689. YOU are a barrister ?

I am, practising at chambers.

2690. Have you had any practice in your profession in reference to patents ?
An extensive practice in reference to patents.

2691. Will you be good enough to state to the Committee what your experience of the working of the present system of the patent laws has been ?

I have formed an opinion certainly, founded upon my observation and experience, and, so far as I am conscious, without reference to any *à priori* reasoning upon the subject. The conclusion to which I have come, unwillingly I must say, is, that I consider the patent laws objectionable in principle, practically useless, and even injurious.

2692. Will you state what you consider to be the principle upon which protection to inventions is given ?

I consider the principle to be two-fold : first, an encouragement to invention, and, secondly, an inducement to the inventor to communicate freely to the public the invention itself ; I look upon a patent, therefore, as a bargain on the part of the public with the inventor, that, in consideration of his so communicating his invention, he shall, for a limited time, have the exclusive benefit of it.

2693. Do not you conceive that that principle of the present law is a principle which ought to be adopted in the law of patents ?

I conceive it to be the principle of the present law ; it is upon that principle that the decisions of the courts are founded.

2694. Are not the objects you have stated very desirable objects ?

No doubt.

2695. Do you think they are attained by the present system ?

I do not ; at least I think the present system is not necessary to the attainment of them, and I think also that it works injuriously to the public in other ways, which more than countervail any advantage to be derived from it.

2696. Do you consider that though injurious, to the public, patents are valuable to inventors ?

I do not.

2697. Will you state why ?

I think inventors, as a class, would be much better without them : in the first place you stimulate and incite a class of men who hardly need it, who are themselves naturally of a sanguine turn ; you incite them in pursuit of a shadow, which is continually apparently within their grasp, but continually eludes it ; I find, in fact, that for one inventor, or supposed inventor, who succeeds, there are 50, or perhaps 100 who fail ; and although the history of invention may be a record of progress and of triumph, I suspect the biography of inventors would be a very tragic story indeed. My experience, and I have had a pretty large acquaintance

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with inventors, as a class, leads me to the conclusion that this incitement operates injuriously upon them ; it is like seeking a prize in a lottery ; the man is continually putting down his stake in the hope of getting a prize, and of course in 99 cases out of 100 he gets a blank.

2698. If all those persons who make inventions which are not useful are injured by the false stimulus which has induced them to do so, how stands the case with regard to the inventors of true and valuable inventions ?

It is, of course, an unpopular opinion to express, and one which one gives with great diffidence and hesitation ; but even in that case I think they would be better without the bounty, granted, or intended to be granted, in the shape of a monopoly.

2699. The diffidence you express has reference only to a courteous consideration of the parties concerned, and not to any doubt in your own mind ?

Not to any doubt in my own mind, but simply to this, that any man who expresses an opinion which is contrary to the general current of opinion, ought to express himself with diffidence.

2700. How do you imagine an inventor would obtain a reward for his ingenuity, and a compensation for the loss of time he has incurred, if he did not obtain the monopoly which is supposed to reward him in a pecuniary sense ?

I think there are many considerations which must enter into the question. In the first place, the class of meritorious inventors is a much narrower one than people suppose. Of the few whom I have ever known who were really meritorious inventors, I do not think I have known one who has derived material benefit merely from the monopoly given to him by the patent. They have derived benefit, but they have got it in other ways, quite independently of letters patent. In this country, and in the state of society in which we are now (I am not speaking of an early state of society, where it may be necessary to stimulate and encourage, but of an advanced state, like the present), there is no kind of talent, practically useful, which does not command its market value. I know practically, that persons who have the inventive faculty, do turn it to good account ; that they do, without letters patent, receive sufficient encouragement from those whose interest it is to reward and encourage them. Of the larger establishments in the manufacturing districts of Lancashire, there is scarcely one in which mechanics, known to be of inventive talent, are not regularly kept ; those men are continually observing and continually suggesting ; they are valuable to their employers, and they are remunerated accordingly. If you take a man out of that category, and propose to encourage him by giving him a monopoly for every improvement which he may strike out, in the first place, you prevent his mind from following the bent and direction which it has received ; you stop him suddenly ; you fix and stereotype him in one idea, and thus you not only deprive the public of the advantage which it would have from his following out that train of thought, and working upon till he brought it to perfection, but you injure the man himself ; you divert him from that which is his legitimate occupation, and the legitimate exercise of his peculiar faculty, and you set him dreaming about making a fortune. I speak of course always with diffidence ; but so far as my observation goes, there is no man who has a practical talent that will not find his reward for it. It is not monopolies which make Watt's and Stephenson's and Brunel's, and to come down lower, it is not by letters patent that you can best reward the humble mechanic who makes and communicates valuable improvements.

2701. One object which you said was thought to be obtained by the granting of patents was, that it induces persons to make their inventions known to the public ?

If you look at it with respect to the public only, it seems to me that you do not want that inducement. There will always be persons who will invent, and an inventor will always communicate his inventions. It is a necessity of his nature that he should do so ; and even if he did not, inasmuch as invention is not a creation but a growth and gradual development, there will always be found some other mind about the same time which will have hit upon the same idea, and the public will not long be deprived of the benefit. The truth is, the idea will be communicated whether you have letters patent or not, either by that person or some one else ; whereas the evil on the other side is, I think, obvious. You rather check the disposition to communicate than encourage it, because the

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and therefore are susceptible of being made productive of profit, are the inventions to which persons wish to apply patent privileges?

Precisely so.

2710. That being the case, do you think, in the present active state of the public mind, there is any danger that any such invention, if not made known under the premium of patent privileges, would be finally and entirely lost?

I think not.

2711. Do not you think that if any particular and great invention were lost in a particular case, in the existing state of the public mind, there being a practical demand for some such discovery, you may safely assume that such a discovery would be made a second time?

I feel confident that it would be so.

2712. The danger of the loss of inventions through non-publication merely, amounts to the danger of some delay in the re-discovery of them; that is the full extent of the evil, upon any supposition, is not it?

It would seem so, from that reasoning. It seems to me, that there is a little misunderstanding in the public mind generally, as to what an invention is; an invention I take to be a different thing from a discovery in the sense in which the noble Lord speaks of it; an invention is, for the most part, the application of some known law, or some principle, to a new subject, so as to produce a novel result; take Appold's centrifugal pump, for example; there is nothing whatever novel in the principle; the centrifugal force is a thing practically known to every boy who has hurled a stone from a sling; it is the application of that law to the lifting of water in which the novelty consists. Now this is a good illustration of what I consider to be the irremediable defects of the patent system; suppose Appold had thought fit to patent that invention (which he has not done), what could he have patented? not the principle, not only because such a patent would not be good in law, but because it is clear you could not make a principle the subject of a monopoly; not the result produced, for that is not a manufacture: he could only patent Appold's pump; that is to say, a particular machine by which, in a particular mode, water is lifted up; that is a meritorious invention no doubt, because the idea of applying the centrifugal force to driving water into a confined reservoir, and so up a vertical pipe till it reaches a certain level, is a very pretty and novel idea; but if he came to patent it, he would be attacked on all sides, and the more useful and valuable the invention, the more it would be attacked, and the more infringed; and how could he protect himself? He must, as I have said, patent this particular machine; but there is scarcely a part of that machine, if there be any part, which is not perfectly well known, and familiar; even the idea itself is not novel; the fan-blower to a furnace is the same thing, the only difference being that there it is air which is collected at the centre, and forced out at the circumference of the wheel, instead of water. The common rotatory bellows is the same thing, therefore he could not protect that. The steam-engine, or wheel turned by hand, which gives the rotatory motion, and so generates the centrifugal force, clearly could not be patented. The forcing of water by pressure, or a power of any sort, up a tube to a higher elevation, is not a matter that could be patented; it is perfectly well known. So that if you take the invention to pieces and analyse it, there is scarcely a thing in it which is novel. I doubt whether even the combination itself could be made the subject of a patent; yet here is clearly a meritorious invention. Now, supposing the inventor had been a poor man, and had desired to protect his invention, see what he would have been subject to: first he must have gone to the capitalist for means to construct the machine, and bring it before the public; he must have incurred a considerable outlay in order to obtain the patent; that is the first outlay, and by no means a trifling one. But when speaking of amending the patent laws by reducing the cost, people forget that there is a vast deal beyond that which the inventor has to contend with before he can secure to himself the exclusive privilege. Here is a machine which anybody, by a little change of combination, may construct, so as to make it appear a different thing; it may still be a forcing pump, it may even be an application of the same force to the same purpose, and yet it is not the same machine; possibly he has to litigate with that person. After half-a-dozen law suits with people who infringe his patent, he is himself attacked on the ground that the patent is not novel, and he has to meet that attack; he may succeed in one or two cases; he may

may fail in another. The greatest satire I have ever known passed upon the patent laws, I found the other day in a pamphlet published by one of the most eminent practitioners in that branch. He says, that as a general rule, where men are plaintiffs, and sue for an infringement, they succeed; where they are defendants, being sued under a writ of *scire facias*, they fail; well, the patentee goes through all that ordeal, and last of all, at the end, perhaps, of the term for which his patent is granted, he finds himself, if he were a poor man, reduced to beggary; if he were a wealthy man, much poorer than when he began. I have seen that so often to be the result, and so painfully, that I cannot divest myself of the conclusion to which I have come. It has sometimes occurred to my mind whether a tribunal might not be suggested which should give, in a less objectionable shape, bounties to those who are meritorious inventors; I have thought about it a good deal, for these things have been for 20 years passing through my mind, but I did not find it practicable according to the best consideration I could give the subject.

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2713. You stated that you thought your opinion was one not shared in by the public at large?

I think it is not.

2714. Supposing that to be the case, do you think that the present law could be advantageously amended, at all events to give a fairer trial to the system of patents?

I have gone through every part of the law with reference to that question; I can see nothing which will remove the main objections; I can see that you may palliate and mitigate them, but I see nothing which can cure the defects that I consider to be inherent in the system itself. If you assume the principle that you are to protect them, of course you ought to make the obtaining of letters patent cheaper. You ought to remove the impediments to the practical advantages which you intend to give, and to a certain extent you might do that. If I were called on to make suggestions, I should not be unwilling to do so; but having a strong opinion that nothing can remove the objections of principle, and that, ultimately, you will hardly have done much good, perhaps rather have aggravated some of the evils by attempting to amend them. I should not feel disposed to volunteer any suggestions of that kind.

2715. If the principle of granting patents be wrong, the greater facility you give to inventors to obtain patents, the more you increase the evil; but if you are mistaken in your opinion with respect to the true principle upon which the system rests, it would be right to introduce into the present law those amendments which are pointed out by persons interested as likely to make it work better?

Yes, but I think that in this, as in almost every other case of a like kind, disappointed men lay the blame upon the wrong shoulders. I do not think the fault is in the law, I think it is in the system.

2716. If the Committee have understood your evidence correctly, your objection to the patent system is insuperable. You look upon it as a system of bounty, by which attention and ingenuity are artificially directed to subjects of invention, and you think that that artificial direction of the human intellect to those subjects, is, in the present advanced state of mental activity unnecessary, and is found practically, in many cases, pernicious to the parties concerned, as well as to the public?

That is my opinion.

2717. And, therefore, any law which shall remove or lessen the practical objections which you feel to the present administration of the patent system, would, in your estimation, in no way whatever touch the real objection which you see to the patent laws?

Certainly not.

2718. Are you still practising as a barrister?

Yes, at chambers.

2719. In giving this opinion against the law of patents, can you have any personal interest in the abrogation of that system?

Not the least; I am in the habit of drawing specifications, and in the habit of advising upon them; what I have stated as my opinion is in fact a conclusion forced upon me. I have occasionally expressed this opinion, and have found certain

J. H. Lloyd, Esq. tain persons whose judgment I respect, agree with me in it. It was known that this was my opinion, and it is therefore, I presume, that I am here.

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2720. Do you find great difficulty in drawing specifications?
Exceeding difficulty. It is impossible to over-estimate the difficulty.

2721. Does that difficulty arise from the instructions of your client, or does it arise from the nature of the subject generally?

It arises from the nature of the subject, mainly. I could point out what the exceeding difficulties are. You have to avoid, on the one hand, such generality as will bring you to a principle only. On the other hand, you must avoid that particularity which would lead to easy infringement. You are to keep off every thing else which has been done and has been made the subject of a patent in the same direction. Therefore, what with qualifying, and what with particularizing, and what with seeking to make the matter as comprehensive as you can for the benefit of the inventor, and what with the inherent imperfections of language itself, and the difficulty of accurately expressing technical matters, the task of drawing a specification is one of extreme delicacy, and even nervous responsibility. And at last there are very few which go out free from danger. Nobody can be said to be sure of a patent till it has been tested by the ordeal of a trial, or two or three trials.

2722. Notwithstanding your opinion with regard to patents in general, have you any doubt that the publication of all existing specifications of patents, with full indices, accessible to the public, would be a very great advantage?

I think it would.

2723. Do those specifications, drawn under those great disadvantages and difficulties, often so describe the invention as to be perfectly unintelligible to any person, except to the inventor himself?

If so, they are extremely faulty. No lawyer would consciously err in that way. He would never make himself the instrument of endeavouring to keep from the public that which the public ought to know. There are, no doubt, specifications which are very ambiguous, and very unsatisfactory in that respect.

2724. And that ambiguity arises in consequence of the parties being afraid of making an infringement too easy?

And partly also from their fearing to tread upon the ground of some other person, so that there is as large and general a shape given to it as possible; and there is another motive which operates very generally. A man conceives, though he has not worked out the idea in his mind, that something further may be done of the same kind: he therefore adds some words large enough to take in what may afterwards be discovered in that particular field, and therefore a positive injustice is done to those who come afterwards, and work up that ground. That is one of the evils of the present system.

2725. Have you looked at the Bills now before the Committee?

I have not.

2726. With the opinion you have expressed upon the general question of its not being advisable to give a monopoly to an inventor, you would of course agree with the clause in this Bill which prevents the mere importer of a foreign invention having any monopoly for the introduction of it?

There is no doubt that that is one of the crying evils in the present system, as it practically works. Inventions communicated, as they are called, are become a nuisance; in fact, it is a trade to deal in communicated inventions, and really many meritorious inventors are shut out from the field by those pseudo inventors, who steal the ideas of others, and seek to appropriate the advantages to themselves.

2727. Are you aware that the law of other countries requires novelty throughout the world, as well as in the particular country in which the patent is granted?

Yes, I believe so. I think, in the present state of communication, there is scarcely any discovery made in any country, which is really valuable and useful, that does not find its way very soon into every other busy country, and certainly none which does not come to England; so that I do not know that a man has a right to set up that he has any merit from merely getting the start in introducing
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what any other man might just as well have appropriated. That notion belongs to an earlier state of society, I think. *J. H. Lloyd, Esq.*

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2728. Is there any other observation which you wish to make to the Committee?

It occurred to me at one time that there might be a Council or a Board, such as the Royal Society or the Society of Arts, and that inventors might be encouraged to submit their pretensions to such a Board, who might report upon them, and recommend them for State bounty. The practical difficulties which occur upon that, seem to be these: either the investigation is *ex parte*, or it is not; if not *ex parte*, and you invite objectors by public notice, the only persons who would come to object under such circumstances would be rivals. You would thus practically arrive at the same evil which it is sought to avoid, viz., litigation upon a disputed patent, and that before a tribunal even less competent to dispose of the question than the existing tribunals—not less competent in respect of knowledge, but because it would have less means of arriving at a conclusion upon facts, and no means of ascertaining all the facts. The inquiry itself would be conducted without principles, if one may say so; and again, not having the character of a judicial proceeding, it would be subject, unconsciously and unintentionally, to influences which do not and cannot affect judicial tribunals, so that you would seldom obtain a satisfactory result. And then, as it seems to me, there is no criterion by which you can determine the merit of the inventor; some men will suddenly and without any labour conceive and mature an idea which may be very valuable, and may claim to be rewarded for that invention, and perhaps properly, because the utility may be considered to be the true measure and principle of the reward; there are others, again, who expend a life, and devote their energies, their time and their money, to the pursuit of an object which, perhaps, when attained, may not be so valuable. The question then arises, whether all this should be taken into account in estimating the claim of the inventor to a bounty.

2729. Would not the existence of a certain body of men, possessing scientific and practical attainments, be very useful, not in deciding upon what was the real merit of the invention, but as the means of informing both the applicant and the Attorney-general, with whom they might be associated, as to the novelty of the invention?

Certainly, I think it would be most valuable. A great many men now stumble in the dark, fancying that they have an invention, which they afterwards find out is not a novelty at all.

2730. Unless persons were particularly appointed to that post, would not there be a difficulty in finding mechanics, or chemists, who are not in some way mixed up with previous patents?

There is no one but a patent agent in extensive practice who really knows what are the subjects of existing patents; one of the mischiefs of the present system is, that men go to those patent agents, who are undoubtedly a very intelligent class of men, but whose business is to make a patent up; therefore, they are continually setting their ingenuity to work, not to make it clear what the man considers himself to have invented, but to find out what it is which can be made the subject of a patent, in the case of this particular man, without interfering with somebody else. The man goes with a fine bird, which he conceives to be of his own hatching, and one feather after another is stripped off, till at last he hardly knows his own again.

The Witness is directed to withdraw.

CHARLES MAY, Esquire, of the Firm of Ransomes & May, Ipswich, is called in, and examined, as follows: *Charles May, Esq.*

2731. YOU were examined before the Select Committee of this House on the Extension of Designs Act?

I was.

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2732. Are

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2732. Are you aware how that Act has operated?

I cannot state anything of my own knowledge; I think, upon the whole, it has operated very beneficially.

2733. Have you had an opportunity of looking at the two Bills which have been referred to this Committee?

No, I have not; I have only a general knowledge of them. I think I have seen one Bill, which was brought in by Lord Brougham; but I have not had an opportunity of examining the consolidated Bill.

2734. You gave evidence, upon a former occasion, that you thought patents ought to be cheapened?

I think they ought, decidedly.

2735. You said, you thought also that there would be a great advantage in having the assistance even if the power of deciding upon the granting of patents were not given to some scientific persons?

I think so; I think a change in that respect would be extremely beneficial.

2736. You would probably submit to them nothing for decision but the novelty of the invention?

No.

2737. Not its utility?

No; I think every inventor must rest upon his own judgment in that respect, as to whether the thing is likely to be useful or not.

2738. Do you think that there is any object in having separate patents for the three kingdoms?

I cannot conceive any other object than that of multiplying fees. Patents taken out for Ireland are comparatively very few; my own experience is, that a patent for Ireland is not worth the cost.

2739. The expense of taking out patents in Ireland is very considerable?

More than in England.

2740. That may, in some degree, operate in increasing the number of patents?

There is increased expense, and a decreased probability of value.

2741. Do you think a great many absurd and useless inventions are patented at present?

A very great number; I think that one great change required is this: that some means should be devised to let absurd patents die a natural death, and this would be a great boon to the country.

2742. You think those absurd patents are injurious to the real discoverers?

Yes; and there are not only absurd patents, but patents which are really obstructive; if the plan which has been made very public, and which I have considered a great deal, were carried out, of periodical payments, it would be the death of a large proportion of such patents.

2743. What do you think would be the best system of periodical payments; should it be an annually increasing payment, or a payment increasing every three and seven years?

I think the interval of three and seven years would be best; if a patent is good enough to survive seven years, a payment of 70 *l.* at the end of that time would not be an onerous thing; at the same time I should expect but a small proportion to survive that period.

2744. Will you explain what you stated just now, that you considered many patents to be obstructive?

A person may hold a patent which contains the germ of that which is good, and yet, if anybody uses it, he may at once stop a further improvement in it; I know a case now, of a patent which contains that which is good, but which, I believe, might be used entirely as an obstructive patent to a further improvement, and it is a patent which has not been used.

2745. You are both an inventor and a patentee yourself?

Yes, I am; I have taken out a considerable number of patents.

2746. In

2746. In the specification it is an object to use general terms, so as to cover more than the discoverer has yet actually arrived at, is not it? *Charles May, Esq.*

I should rather say it is the object to make the terms so general as to cover the invention, and any modification of it which belongs to the patentee. 17th June 1851.

2747. In that manner the specification often contains the germ of what will be useful, though it is not clearly specified; still the language is sufficiently general to prevent the discoverer of any modification of the invention from obtaining letters patent?

I think there may be cases of that kind; the custom is, to include as much in the patent as possible.

2748. Is not the granting a patent for several incongruous matters an abuse?

I suppose it may be said to be so; but seeing it has been used and approved of, of course when we have to pay 100*l.* or 150*l.* we try to get all we can.

2749. Do you find great difficulties in getting specifications drawn for you?

No; I have no difficulty in that respect at all, and I do not think any one has any difficulty except in paying for them; of course to get first-rate talent is expensive, and for very important patents sometimes very large expenses are incurred; I remember a case of one specification extending to 60 sheets of parchment.

2750. Taking the whole sum of the expenses which an inventor has to meet in taking out a patent, what proportion do the fees paid to the Government offices form of that sum?

Speaking entirely from memory, the fees for an English patent are about 110*l.*; my own experience as to what I may term, not legal costs, but the patent agent's costs, is, that they may vary from 40*l.* to 100*l.* in addition to the fees. Those are merely the patent agent's fees. The costs of experiments in some cases may be a mere nothing; in other cases they may amount to hundreds of pounds; I have never myself had a very long or expensive patent; I should think there have been patents in which hundreds of pounds may have been spent in addition to the fees.

2751. Do you consider that it is the inventors, or the public, who are most benefited by the system of patents?

From the best consideration I can give to the question, I believe the public reap most of the advantage; I think there is only a very small proportion of the number of patents which even pay their cost; some few pay enormously.

2752. Is the remuneration always in proportion to the merit of the invention?

I think that may be stated as the general rule; it is liable, of course, to many exceptions.

2753. Does the payment generally find its way into the pocket of the real inventors?

Yes; I think fairly so. There will be some cases in which inventors have sold their patents, and others have taken them up, but I think that in these cases the inventor himself would never have worked the patent; therefore he is benefited by the capitalist taking it up.

2754. Have you been much troubled by the infringement of your patents?

I once got into Chancery in a case of infringement; I hope I shall not get there again, though my case was as clear a one as possible.

2755. You did not come out of it scot free?

No.

2756. Have you never been attacked for the infringement of other persons' patents?

Never; we use a vast number of patents, and have a great many brought to us and offered to us in various ways; our constant rule is, even if we know a patent is bad, if it is but useful, always to pay for it. I never intentionally infringed a patent. The cost of getting into Chancery is such that no one would incur it who could avoid it.

2757. Are you liable to infringe a patent without being aware that you are so doing?

We are, to some extent, liable to that; I think we once or twice have had a case in which we infringed without knowing it; but immediately on being told of it, we made terms.

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2758. You state that it is a rule with you never to infringe a patent ; for the purpose of carrying out that rule effectually, are not you often seriously inconvenienced in your own processes ?

No, I think not ; there are some patentees who are very obstinate ; but, as a general rule, we have no difficulty in making terms.

2759. You state that you are not inconvenienced from the necessity of avoiding patents, because you purchase the privilege of using them ?

I would not say we are never inconvenienced, but no serious inconvenience arises ; we do sometimes find a little difficulty in the way, and it obliges us to negotiate ; it rather sets our wits to work to try and devise something better.

2760. You state that the great majority of patents, in your opinion, are not profitable to the patentees ?

I quite believe so.

2761. But there are a few cases in which they are enormously profitable ?
 Yes.

2762. You state, also, that you consider the benefit of patents to arise principally the public ?

I think the public, on the whole, get the most benefit.

2763. In what form do you think that benefit arises ?

I think the power of obtaining patents stimulates invention to a great extent ; and, looking at the whole question in the best manner in which I am able to view it, I think the public get served on the whole at moderate prices for new inventions, and that new inventions are brought forward ; at the same time, I am quite ready to admit that the thing has been very much abused, and I think the whole manner of granting patents has been very much the cause of that abuse.

2764. Do you think that the bounty which a patent right presents to invention is requisite in the present advanced state of ingenuity, and in the present very active condition of the public mind upon that subject ?

That is a large question, which I confess has been before my mind a great deal, and as I have before stated, if the subject were broadly and fairly broached among all inventors, as to whether patents should be entirely abolished, I think, as holding patents and as being an inventor, I could look at the thing in an unprejudiced manner, but I doubt whether so large a change could possibly be made hastily. I think if that event come to pass, it must be slid into, as it were, rather than be entered on by any violent measures. The capital, and the various interests vested in patents, I should think, must amount to a sum which would be almost incalculable.

2765. Supposing there existed in this country, at the present moment, no patent laws whatever, and never had existed any, should you be disposed to recommend the adoption of a patent law system ?

I should be rather doubtful in answering that question ; I should be doubtful, I mean, of my own judgment in the matter.

2766. You would think it a very doubtful question ?

I should think it a subject which would require the gravest consideration to introduce a system of that kind. I am inclined to think that, under proper regulations, it would be beneficial to do so.

2767. Looking at the activity of invention in those branches of knowledge to which the human mind applies itself, to which patent rights are not applicable, such as the great principles of science in all its branches ; observing with what intense anxiety inventions are pursued upon those subjects, and published to the world, for the sake of reputation alone ; do you think upon those subjects to which patent rights are now applied, the same activity of invention, and the same readiness to make known to the world, in a greater or less degree, would not still be applicable, without the artificial stimulus of the patent rights granted in those particular branches ?

I think, as respects a very large proportion of inventions, that process would undoubtedly take place ; that is, men of high standing, not pursuing a thing for their livelihood, would promulgate to the world a great deal of what is beneficial,
 as

as is now done; but I very much doubt whether some important branches of manufacture would be carried out, except under a sort of guarantee that the result of their labour would be secured to them for some limited time. I doubt very much whether the steam-engine would so rapidly have attained its perfection, if there had not been protection given to it.

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2768. Are you acquainted with the present state of ingenuity in the manufacturing districts?

To some extent I am. I lived in the manufacturing districts some years, and have also a manufactory of my own, in which we employ seven or eight hundred hands.

2769. Is not the great source of the comparative success of manufactures at present a small priority in point of time in the state of their machinery or other applications of skill to their productions?

I think the largest improvements have been made rather under the protection of patents, so far as my experience goes.

2770. To what cases do you allude?

I speak from the general knowledge I have of the cases of persons who have had patents. Take Howard's sugar refining, for instance. I have not so much knowledge with respect to textile fabrics. I know there have been some very large and important things introduced; for instance, the making of cards for cotton machinery. A large fortune was made by that.

2771. That was the case of a patent imported from America, was not it?

I do not recollect it clearly; it was greatly improved in this country.

2772. Have you anything to suggest to the Committee which has not been elicited by your examination?

I have very closely considered the plan which has been suggested, of paying a small sum first for a patent, and letting it die out; I have tried to compare it with another plan of buying up patents: I think the latter plan would be perfectly impracticable, while I think the plan of paying a small sum, and then another sum, and then a third, would answer every beneficial purpose.

2773. Reserving the heaviest payments for the latest periods?

Yes; if the patent goes on well, the heaviest payment comes at a time at which it can be made. The greatest boon to the public of all would arise from the fact that so many would die out of their own accord.

2774. Is it a large class of persons who now pursue invention as a regular professional pursuit?

I am not aware that it is a large class of persons; there are considerable numbers, but they are hardly to be called a large class.

2775. Do you think that the most important and useful inventions to the country have proceeded from that class, or from persons differently circumstanced, following their ordinary pursuits, and making inventions as the exigencies of those pursuits lead their minds to the discovery?

The most important inventions, I think, as far as my experience goes, have arisen from persons in their own line of business carrying out some new ideas in that business which they are at work at for their livelihood.

2776. Are not those persons less likely to be immediately influenced by the bounty arising from patent rights than the causes which have been already spoken of; you have stated that there exists a class of persons who pursue invention as a regular business of life, but that, in your judgment, the inventions which have been the most important and the most useful have emanated not from that class, but from persons pursuing their various avocations, and applying those inventions to assist them in the improvement of their own business. Are not the class of persons pursuing inventions as a profession, a class created by the artificial patent system, while the other class would exist without that artificial patent system, and probably make their inventions independently of that artificial encouragement?

Yes; I think the class of inventors are certainly the creation of the patent law.

2777. And do you think that their inventions are far less important and far less useful to the community, than the inventions of other parties?

I have not enough experience to judge upon the subject; but I believe that the

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bulk of the valuable improvements of the country originate from the manufactories.

2778. Do you think it is desirable that patents should be granted only for inventions which are perfectly novel ?

There are a great many patents now for improvements upon known things ; many of them can hardly be called novel inventions, so much as improvements upon inventions.

2779. Do you think that such an improvement ought to be a novel improvement ?

I think it ought to have a distinct feature in it to entitle it to a patent.

2780. Do you think that the novelty should be confined to its being new in this country, or that you should be able to patent a thing which has been used and published either in France or America ?

No ; I think there requires a considerable amount of restriction in that question. The whole world is now getting as easy of access as the kingdom used to be ; and I think it is unfair for a person to travel in France, and go through the manufactories, and see something which strikes him, and then come back, and pretend that that is his own invention. It might be very well when the communication was very indirect and infrequent ; but I think in the present state of things it is not fair.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned till Friday next,
 One o'clock.

Die Veneris, 20^o Junii 1851.

THE EARL GRANVILLE, in the Chair.

THOMAS WEBSTER, Esquire, is called in, and further examined as follows :

Evidence on the
Patent Law
Amendment Bill,
and Patent Law
Amendment
(No. 2) Bill.

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2781. HAVE you been so good as to consolidate the two Bills in the manner which the Committee requested you to do, in order to facilitate the consideration of them ?

I have amalgamated them, so to speak. The two Bills contained a number of clauses in common, and some which were different. I received instructions from your Lordships to insert one or two clauses which were in neither of them, and I have endeavoured to work the clauses of the two former Bills, and those additional clauses, into one Bill, which I hold in my hand.

2782. Will you be so good as to deliver it in ?

The same is delivered in.

2783. Will you proceed to explain the alterations which you have made ?

The 1st clause was not in the Government Bill, but it was in Lord Brougham's Bill ; it is a clause empowering the Crown to grant letters patent in manner hereinafter mentioned, notwithstanding certain statutes. I thought that was necessary, because those statutes now define the existing practice. The Crown could not grant patents, according to the present practice, without those statutes being either repealed, or declared not to be operative ; two of them are essentially necessary ; and the third, which was passed in the 13th year of Queen Elizabeth, relates to what is called the exemplification of letters patent ; that is done away with in effect, by empowering the Chancellor to issue new letters patent, in case of the original letters patent being lost ; that is an addition to the clause as it stood in Lord Brougham's Bill. The 2d clause stands as it was in Lord Granville's Bill, with the exception of the omission of the " Secretaries of State." The Commission is now reduced to the smallest number, namely, to those who have at present to deal with the actual granting of patents, it being suggested that the number should be as small as possible, their functions under this Bill being to make rules of practice, and regulate the proceedings connected with the granting of patents. The 3d clause is an amalgamation of the 2d and 3d clauses as they originally stood in the Government Bill. Instructions were given to let the rules be expressed in the Act of Parliament as much as possible, not leaving such extensive and indefinite powers to the Commissioners ; therefore the 2d clause was struck out, and part of it amalgamated with this 3d clause. The 3d clause, with the exception of the provision for reporting annually to Parliament, is a combination of the 2d and 3d clauses as they stood in the Government Bill. The object of the 4th clause is the same as the 4th clause of the Government Bill, but it is a little different in point of form ; that raises the question as to the office at which all the proceedings should begin ; and I wish to call your Lordships' attention to this question respecting offices : at present there are eight offices, six of which are a check one upon the other, so that if a mistake is made at any one, it may be traced back and corrected by one of the others. Then there are the Attorney and Solicitor-general's offices, to which a party must go if he wishes for information. According to this Bill, there would be two offices. The Attorney-general expressed himself very anxious, in a consultation which I had

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with him, the Solicitor-general being present, that there should be but one office ; that appeared to me to be impracticable : first of all, there must be an office in the nature of a Record Office, to which the public should not be admitted ; secondly, there must be an office which might be called the Commissioners' Office, to which the public will be admitted ; those two offices would register one against the other, and I think you could not reduce the number to less than two, with security to the public. Then, having regard to the existing offices, the only office which is, in its present state, well adapted to the business, is the Great Seal Patent Office ; and inasmuch as the patent is to bear date from the day of application, I think that the first application should be made at the Great Seal Office, and that that should be made as much as possible the office of record, because the Lord Chancellor, in the event of any application being made to him, would have the original application in the same office with the warrant for granting the patent, which he must have also in his own office, unless the present practice be entirely changed ; therefore I would suggest that, as it originally stood in the Bill, the first application should be to the Great Seal Patent Office, as the last must be there, and that all the intermediate proceedings, namely, the advertisement and the consulting of documents and indices by the public, and everything of a public nature, should be at what we may call the Commissioners' Office. I would suggest, therefore, that the petitions, declarations, and provisional specifications should be left at the Great Seal Patent Office. In consequence of a conference with the Attorney and Solicitor-general, and with Lord Granville, the Bill was altered so as to leave it open to the Commissioners to regulate all the proceedings from the commencement ; but a strong desire exists to have the Bill made as certain and definite as possible, and I think it will be found more convenient for the first step to be taken at the Great Seal Patent Office, inasmuch as the last step must be taken there. In addition to this, a large number of applications will never go any further than the first stages. There would be nothing more done than paying the first 5*l.* and getting a certificate for provisional protection. The ability to use and publish the invention from the time of the application, without prejudice to letters patent subsequently granted, will enable persons to consult others without fear, and lead to the abandonment of a very large number of applications. The working of the Protection of Inventions Act shows that they do so. The subsequent steps up to the warrant would be at the Commissioners' Office. The next clause provides in effect this, that the provisional specification should be referred to some person to report, or to certify as to its sufficiency, and that upon that certificate being given and filed, the applicant should have provisional protection for six months from the time of filing that certificate, with power to extend it to three months more. In the Government Bill there was a power to extend it to six months. Some discussion took place as to whether that power of extension should be to six months or to three months ; I have taken three months. The effect of that provisional protection, as declared by the 6th clause, is, that the party can use and publish the invention immediately after obtaining the certificate. By means of the provisional protection, the inventor would be able to bring in persons of skill to examine his invention, without the fear of his losing his right. He would have no rights except under the letters patent. The letters patent, when granted, unless sufficient cause to the contrary could be shown, would bear date as of the day of application. But he could not sue for any infringement committed till the patent was actually granted, so that there would be a pressure upon him not to delay longer than was necessary. That would operate in this way : if the invention were coming into use, or were likely to be infringed, that would be such a test of its utility as to induce the inventor to proceed with his patent at once. The 7th clause provides for advertisements and for notices of objection. That, in principle, is likened to the proceedings under Lord Brougham's Act (5 & 6 Will. 4, c. 83), the Privy Council Act, which provides, that when an application is made for an extension of a patent, the party shall give in his objections in writing. It was agreed at a meeting which took place with the law officers at the Board of Trade, that a system of advertisements should be substituted for the system of caveats. The system of caveats was thought to be very imperfect. The parties not being required to deliver in their objections in writing, very serious complaints have been made respecting it. Therefore, that clause substitutes a system of advertisements and objections in writing for the present system of caveats, and then provides that such provisional specification and such objections, if there be any, should be referred to an examiner or examiners,

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examiners, who are to report to the law officers upon the novelty of the invention, or any other grounds, such as the sufficiency of title, which, in their opinion, may affect the granting of the patent; so that the functions of the law officers, instead of being, as they are now, partly ministerial and partly judicial, may be made as strictly judicial as possible. The notion is, that the Commissioners would appoint some six or eight persons skilled in particular departments, including two or three engineers, and two or three chemists; one or more of whom might be chosen to report on any particular subject; and that they should not sit as a Board, except for convenience. It might be a very convenient thing that they should meet occasionally for the sake of conferring together. I have discussed this subject with Mr. Robert Stephenson and Mr. Rendel, and several other persons who would be consulted, and who are now consulted in matters of this kind. They are of opinion, that the only way to get the best information and talent, is to have eight or ten persons nominated who may be referred to; and that the attempt to have a permanent Board would never succeed. It has all the defects of the American system. The moment you have a permanent Board, you are in danger of their falling behind the age. You cannot keep people up to the state of knowledge, unless you select for the particular occasion persons who are skilled in that particular department. I thought that there should be eight or ten persons named by the Commissioners as the most eminent persons, and that they should be referred to as occasion arose. Of course, in the event of their having had any business connexion with the application, they would decline to act. Their functions should be confined almost strictly to reporting upon the novelty of the invention; and my belief is, that the operation of that six months' clause, and of the ability to expose and publish the invention, would be a great deal more operative even than the report of the examiners. Then the 8th section is one which the Attorney and Solicitor-general felt to be very important. It makes everything which has been done subject to the approval of the law officers. It makes them the judges of everything which may have been done, with power to correct or vary it as circumstances may arise; and it also gives them the power of awarding costs, the notion being that their fee in unopposed cases might be a small sum, pretty much what it is now, but that they should be paid according to the work done in opposed cases, and that they should have the power of making the applicant, or the opponent, as the case may be, according to their discretion, pay the costs. Those fees upon appeals would be extra to the costs in the schedule, the costs in the schedule being the costs in unopposed cases. The 9th section provides that the warrant of the law officers should be the warrant for sealing the patent. That differs from both Bills, because, according to the instructions which I received, the sign manual was to be given up. The warrant of the law officer would be the same as the Privy Seal Bill is at present, and that is a record which must be kept at the Great Seal Patent Office. Of course, if your Lordships thought fit to change the whole practice, and to have but one office, that would be another thing; but looking at the existing offices, the warrant must go to the Great Seal. The 10th clause is common to both Bills, namely, the clause respecting the payments at the end of the third and seventh years. The 11th clause is a departure from both Bills; it is in pursuance of the instructions which I received from Lord Granville and the law officers. Under both Bills there was to be but one patent, in point of form, under the Great Seal, but that appeared inconvenient in many respects; therefore it was suggested that there should be but one warrant for the whole kingdom, but that three transcripts should be made of the letters patent in the same form in every respect, the only difference being in the name of the country; that these should be signed as at present by the clerk of the patents, and sealed with the Great Seal, the Seal of Scotland and Ireland respectively, so that you would have, in effect, as far as the inventor is concerned, but one patent, because all the proceedings would be the same up to the warrant. The warrant would be the authority for the three, but you would have the convenience of three patents for the purposes of title, and for the purposes of record at Edinburgh and Dublin, it being necessary that there should be offices there at which the specifications might be open to the public. The 12th clause is a new clause, introduced with your Lordships' concurrence, to meet this case. It was one of Mr. Duncan's suggestion. It refers to the case of patents granted for England, but not yet granted for Ireland and Scotland, the inventions not being specified; and he also put the case of patents granted for England, but not granted for Ireland and Scotland, the inventions being specified. It appeared to me that your Lordships could not deal

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with the case of specifications enrolled; that they must be left to their operation, whatever it may be; but that as respects patents for England, of which the specifications are not enrolled, and as to which there has been no publication, this course might be adopted: the party might petition the Crown for new letters patent for the United Kingdom, but those might be granted of the same date as the patent for England, without any payment, because he would already have paid 100*l.* for the English patent; but he should be subjected to the further payments of 40*l.* and 70*l.* at the respective periods. The next clause is the 13th, respecting the effect of the use of an invention abroad. That clause has been a good deal discussed, and I will only point out the difficulties it would place in the way of the patentee. He would have his title here defeated, though he were the *bond fide* inventor, by the introduction of any thing from a remote country. At the same time the mischief is fully admitted with respect to a person picking up an invention in France, or any other country. I would suggest to your Lordships whether that clause does not go beyond the mischief, and whether the mischief may not be obviated in other ways. I would suggest one practical difficulty upon this 13th clause, which is this: that the moment an action for infringement was brought, there would be a pretence of user abroad; a commission would issue; and the plaintiff would be delayed a very long time under the pretence of that commission. The practical difficulties which lawyers feel in dealing with the clause are very great.

2784. None of those difficulties appear to have been felt in foreign countries?

I have done my duty in calling your Lordships' attention to the difficulties. The 14th clause is common to both Bills, and so is the 15th. To the 16th clause, I have added a proviso that the patentee should have 25 copies of his printed specification gratis. The Commissioners are to cause all specifications, that is, the old specifications, to be printed as soon as they are able; but all subsequent specifications are to be printed forthwith, and the patentee is to have 25 copies gratis, which is nothing for the Commissioners to give, and is a consideration for his paying 5*l.* on filing the specification, because it is estimated that 3*l.* would pay for the printing. The 17th clause is the same as in the Government Bill. The 18th and 19th clauses are new; they have been generally recommended. The 19th clause is a clause for providing a registry of proprietors. The difficulty of knowing now in whom patents are vested in the event of proceedings by a *scire facias* is very great. Though your Lordships have had no evidence upon that subject, patentees, in communication with myself, have expressed a great desire for it. The 20th clause, for making a false entry a misdemeanor, and the 21st, for expunging entries, are on the analogy of the Copyright Acts. Before I leave the 13th clause, I wish to refer your Lordships to a clause which I originally prepared and submitted to the Attorney and Solicitor-general. It was to this effect: "That use and publication in any of Her Majesty's colonies and possessions abroad should have the same effect, and no other, as use and publication in foreign possessions." It was a colonial clause as I originally prepared it. The 22d clause extends the power of disclaimers to new patents: it provides for the entry of caveats at one office instead of their being entered at six offices, as at present. I think that is a case in which the caveat should be at the Commissioners' Office; as it stands in the Bill, it is at the office of the Great Seal. I think the caveat should be at the public office, because the disclaimer is filed by the Act of Parliament at the Great Seal Patent Office. The clause goes on to provide that the filing of any disclaimer should be deemed to be an enrolling; and then it provides that the fiat of the law officers should be conclusive upon the right of a party to enter the disclaimer. Many questions have recently arisen where it appeared that parties were interested in a patent, all of them not having concurred in the petition, or not having signed the disclaimer; and it is very important that when the Attorney-general has granted his fiat, it should be conclusive upon all questions of form of that kind, because he would have the parties brought before him; and if, in the exercise of his judgment, he allows the disclaimer to be entered, the question as to the party by whom it is entered, I think, ought not to be open to discussion, except in cases of fraud. The 23d clause extends the provisions of the Privy Council Act to patents, and contains those provisions which the Committee directed me to insert. It appears that if the Privy Council recommend the extension of a patent, all the fees are paid over again. It is provided by this clause, that the Order in Council for the extension of a patent shall be a sufficient warrant for the sealing of new letters patent, so that there would be no fee paid upon

upon it, except the last fee of 5*l.* for sealing the patent. The 24th clause is a clause which was introduced in consequence of a suggestion of Lord Cranworth, referred to at the first meeting of the Committee, respecting better particulars of objection. I was examined as to the working of that clause, and my opinion is, that it has not worked well, owing to the language which is used in it. The courts have not known what interpretation to put upon it. This clause introduces a new principle, that the plaintiff shall be required to give the particulars of his breaches. The declarations are in a general form; and it often happens that great expense is thrown upon the defendants, owing to their not having some information as to the ground of complaint. It will be in the discretion of the courts, under their general jurisdiction, to say how detailed those particulars shall be. The 25th clause refers to costs. The 26th clause provides for the payments and the constitution of the Patent Fee Fund. The 27th and 28th clauses relate to salaries and compensation. The 29th clause is the interpretation clause. The only two additions that I would suggest to that, would be an interpretation of the meaning of the Great Seal; and then, also, that the petitions and declarations may be in the forms in which they are in the schedule, so that the Act may prescribe the forms of the proceedings as well as the practice. With reference to the schedule of fees, it was altered at the suggestion of the Attorney-general, so as to leave on the face of the schedule the fees which would be paid in unopposed cases; the extra fees which would be paid in opposed cases being to be fixed by the Lord Chancellor or the Master of the Rolls, or the Commissioners. I ought also to mention that the 5th, 6th and 7th clauses are, to a certain extent, in substitution of the 13th clause of the Government Bill, which provides for provisional protection. The 13th clause of the Government Bill introduces the feature of provisional protection for six months, on payment of 2*l.* The Bill has been altered to extend that to all cases.

T. Webster, Esq.

20th June 1851.

The Right Honourable the MASTER OF THE ROLLS, and Mr. SOLICITOR-GENERAL, Members of the House of Commons, attending, are examined as follows:

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Rolls, M. P.,
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general, M. P.*

2785. (To the *Master of the Rolls*.) WILL you be so good as to refer to the second clause of the Bill, and state whether or not you think it desirable that so many high functionaries as are there named should be placed upon the commission?

I think it very desirable that there should be but a small number of persons, and that those should attend to any matters which might be put before them. There may be some difficulty in arranging that. The persons who are named in this clause are all persons who have to do with patents at present. It is to be observed that, practically, the duties would probably fall into two or three hands. The law officers of the Crown, and probably the Lord Chancellor and the Master of the Rolls with them, would dispose of every thing which related to these matters, taking the advice of the Lord Advocate or the Attorney and Solicitor-general for Ireland in matters in which they thought it very important to have their opinion, as being cognizant of all subjects relating to those particular countries. But I doubt very much whether it would be found, in practice, that the Lord Advocate or the Attorney and Solicitor-general for Ireland could be constantly paying attention to the subject of patents generally.

2786. When you state that you think, practically, only those functionaries whom you first named would take an active part in the proceedings, do you mean that they would take an active part in drawing up rules, or do you mean that a still smaller number would act ministerially, with regard to granting patents?

It is to be observed, that they are to be united with certain other persons whom the Queen is to appoint to be Commissioners. I have no doubt, practically, it would be found that those persons so to be united with those functionaries would be the persons upon whom the labour would principally fall, and that, in fact, the others would only be occasionally employed for the purposes of checking them, or giving them any assistance which, from their knowledge, might be found necessary or convenient.

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2787. You

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2787. You think it would be necessary to have some legal functionaries of that description to check the other examiners, even though it should have the effect of somewhat diminishing the responsibility of the other Commissioners?

I think it essential that you should have some one to check the Commissioners, and for that purpose it seems most natural to employ the persons who have hitherto been most conversant with the subject of patents.

2788. Will you proceed to the first clause of the Bill on which you think it necessary to make any observation to the Committee?

With respect to the 3d clause, that appears to me to be a very proper enactment. With respect to the 4th and 5th clauses, there is one subject which appears to me to be of considerable importance. The 5th clause provides for filing the provisional specification which is to give provisional protection for a period of six months, which may be extended to nine months. This is thought to be, as I understand from Mr. Webster, only a modification of the 13th clause in the former Bill. It appears to me, practically, to be rejecting the 13th clause altogether. I will state why I think so. This provisional specification, as I understand it, is not to be the final specification, but the person may afterwards make a final and complete specification, this being only the heads, or outline specification, which is to be completed, and which is afterwards to be enrolled. I think it a very desirable thing that, in every case where a perfect specification is not enrolled at the time of applying for the patent, there should be an outline description of what is intended to be done. Your Lordships are possibly aware that I made some regulations to secure that object when I filled the office of Attorney-general. It is very desirable that the specification should not be allowed to exceed that description, and in what I am now saying I make a distinction between the outline description and the complete or final description. It has been a constant complaint with inventors, that they cannot obtain money for the purpose of carrying their inventions into effect without disclosing what their inventions are; and the consequence is that they lose the protection, and do not get the reward, but enable some one else to do so. The 13th clause in the other Bill was introduced for this purpose. In a great many cases, the inventor is ready, in the first instance, to make his complete and final specification; and in every case where he is ready to make his final specification, he should be at liberty to do so. But you should not require of him to take out the patent; that is, to pay all the fees, and go through the necessary proceedings for a period, say, of six months after that is done; then his specification is made public; but as his protection is secured, he has the facility of going into the market, and showing what his invention is to all the world, without enabling any one to pirate it. Now, if you make it an outline description, which I take to be another word for provisional specification, it will not afford him that facility. Everybody is perfectly aware that, until the final specification is enrolled, you cannot tell exactly what the invention is, or whether it is a good invention. If he is able to alter it, or add to it, or introduce what may be a legitimate variation between the outline description and the final specification, you will not afford to the inventor the facility for bringing his invention into the market, which he would have if he made a final and complete specification at any particular period. Therefore, I think it a very desirable thing that you should allow any inventor who should be ready with the same guards and opportunities of opposition which may exist in the case of any provisional specification, to enrol his final and complete specification at any period he pleases. But, at the same time, as he may be a very poor man, you should not require him to pay all the amount of fees, or all the expenses which may be necessary upon it, till some stated period after that time, say six months, which seems to be a reasonable time, in order to afford him an opportunity of making the best of his invention in the market. This appears to me to be defeated by this 5th clause. That was what was intended to be provided for by the 13th clause.

2789. Do you apprehend that inventors would find any difficulty in getting assistance merely because of the difference between the outline specification and the complete specification?

I think they would in many cases; it is a very difficult thing to say what shall be a sufficient provisional specification; it is exceedingly vague; it rests in the breasts of certain persons. You may merely indicate a notion of what is intended to be done, but when you have enrolled the final document, there you have the whole thing complete, and you cannot vary it, except so far as you can do so
under

under Lord Brougham's Act, which has certainly been found to be most beneficial in practice, giving a power of disclaiming a portion of the invention. The effect of that, your Lordships will observe also, is to be guarded against with very great care. By disclaiming a portion of an invention, you very often extend the operation of it very considerably: you disclaim a portion of the invention, and thereby make it very much larger. Finding a great evil to arise from a person being allowed to leave every thing vague, thereby adopting a means of extortion by keeping a great number of patents hanging over the heads of other persons applying for patents, I thought it very desirable that no person should obtain a patent without putting in an outline description of what his invention is intended to be. Practically speaking, there was the greatest possible difficulty in ascertaining what was sufficient for that purpose: in many cases the man would deposit the exact specification which he intended to enrol; in a great many cases he would merely make a little enlargement of the title of the patent. I was obliged to reject them constantly, and say this will not do. I found the greatest possible difficulty in deciding what would be sufficient, and determining whether I should say this outline description is sufficient, or is not sufficient. Unless you can define exactly what is meant by provisional specification, which I do not believe you can do, I think you will not afford the inventor the advantages which he is entitled to, and which he could obtain under the 13th clause of the former Bill, unless you allow him at an early period to file a complete and perfect specification.

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2790. Will you state whether the great difficulty of exercising a discretion upon the question of whether an outline description is sufficient or not, is a legal or a scientific difficulty?

I used to consider it a mere question of fact: in all matters of science I had very considerable difficulties. When I thought I did not understand the subject sufficiently, I used to consult friends of mine, whom I knew to be acquainted with the subject, and who, out of personal friendship to me, gave me their advice; that was a separate and distinct matter.

2791. Do you propose that in no case should an outline description be allowed to be given in, or do you propose that it should be discretionary and optional with the parties?

I am of opinion that in every case where a person does not insert his specification in the first instance, a person applying for a patent should put in an outline description of what he intends afterwards to specify, and that his perfect specification should not be allowed to exceed what may reasonably be said to be contained within the outline specification; and I think the patent should bear date from the day of the application. Then in that case nothing is made known to the public till a complete specification is made public. His outline description would be retained in the office, and would be a check upon him in case of the patent being thereafter disputed, and some persons saying, "You have specified something which infringes my patent, which I should have opposed at the time, and, possibly, successfully, but which I could not successfully oppose, because your outline description gave no notice to the Commissioners of what you intended to specify, but which information, if given to them, might have induced them to give effect to my opposition, and withhold your patent." I think the outline description is not a thing to be made public till the necessity arises for the purpose of resisting the patent after the complete specification has been enrolled; but, on the other hand, I would in all cases allow the person, if he pleases, to enrol his complete specification in the first instance, which would then become public, and would give the public an entire and complete knowledge of the subject.

2792. You wish that there should be two distinct modes of action?

Yes. It is a common observation, that inventions on one subject all come together; that something turns the human mind to one particular point, and there are many persons' minds concurrently arriving at the same point. One person has made, or believes that he has made, a very useful invention. He is very desirous to protect the invention which he has made, and for the reason I have already stated, to do so at as early a period as possible. He comes for a patent and deposits an outline description, but he is not ready to specify; he says, "I shall require three or four months to mature my invention;" and this, for the reason already mentioned, is a matter to which an inventor attributes great importance. To him I would say, "You shall not gain an advantage over other

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inventors, by going beyond what you have deposited as an outline description of your invention, and therefore at the same time that we will allow you six months to specify, and enrol a complete specification of your patent, you shall not go beyond what is included in your outline description; that is one case. Now the second or other case is this: if there is a man ready to enrol his patent completely and perfectly, who has fully matured his invention, but is at the same time unable to pay for the expense of taking out a patent; at this moment we will allow him to do it, and we will allow him also some provisional protection, before he pays the fees necessary upon completing the patent, to enable him to bring his invention into the market.

2793. Adverting to the difficulty pointed out by you, the Committee wish to call your attention to the words of the 5th clause: That "the provisional specification shall be referred to such person as the Commissioners may from time to time, and for the time being appoint, for the purpose of giving certificates as hereinafter mentioned, and the person to whom such reference is made, being satisfied that the provisional registration describes the nature of the invention, shall give a certificate." Do not those words appear to you sufficient to meet the difficulty which you have pointed out?

I do not think so; I think that is exactly the difficulty which I have felt, practically, with respect to outline descriptions which have been laid before me. Not only do not I think it sufficient for him to describe the nature of the invention, but I do not consider an outline description deposited by a person applying for a patent sufficient, unless it goes further than describing merely the nature of the invention. I have always thought he must describe, to some extent, the manner in which he carried into effect the invention, of which he had already described the nature; the difficulty I feel about that is, that you cannot define provisional specification. It is impossible to arrive at any accurate definition of how much shall be meant by what, in this clause, is called provisional specification. One man may think a very brief description sufficient, another will require a great deal; I do not believe it is in the nature of language to define it so as in the minds of the different persons who have to judge of it, to bring what is sufficient to any exact rule or measure.

2794. The effect of first depositing an outline description, which is afterwards to be corrected by a full specification, may be, in some cases, to protect a person who has arrived at the first idea of an invention, against another inventor who attains a little later to that idea, but perfects it before the first inventor; is it necessary, in your opinion, that patents should be granted, except upon a full specification in the first instance?

I think that that is a difficult subject and my opinion was, originally, that no man ought to come for a patent until he had his invention quite complete and perfect; I retain that opinion, but I think your Lordships will find that inventors would be very much opposed to it. The practical effect of what takes place now, according to the existing law, is this: if one man has the same idea as another man, the one who comes first obtains the patent, because he has an opportunity of successfully opposing the person who follows him. The man who comes first really gets the patent, even though the invention of the second man may be a little more complete; but this leads to many other considerations involving the whole question of patent law.

2795. Might not it so happen within the scope of your last answer, that the second person is the real inventor, and is excluded by the first, who is not so?

It frequently happens, undoubtedly, that this is the case, that the first inventor gets something which will not enable him to work his invention beneficially, but which is essential to enable the second inventor, who completes it, to work it beneficially.

2796. Whereby the real inventor is excluded by a person who is not the inventor?

Yes.

2797. The object of provisional specification is apparently to meet the case of a person who has conceived a new idea, and who has developed that idea, so far as it is possible to develop it in his mind only, but who cannot proceed to develop it in mechanical processes without resorting to the aid of other persons, by which he

he betrays his secret, and perhaps even legally publishes it. The object of provisional specification is to give to a person in such a situation the means of maturing mechanically his invention without losing his legal protection; do you think that that object can be accomplished by means of a provisional specification, without necessarily, in so doing, unjustly excluding another inventor who may have conceived an idea, later in point of time, but been more expeditious in bringing it into practical development than the first?

I do not think there is any injustice in excluding the subsequent man; you must lay down some rule upon the subject, if you have a system of patent law at all; if so, the only course which appears to me to be practicable is, to lay down the rule, that the first inventor in point of time shall have the benefit of the reward which you think fair to give to inventions, by granting them a monopoly. The best reason which can be urged for it is, that the man has matured his invention in his own head, as far as he can, but he cannot work it out completely without practical operation, and he cannot do this without communicating the secret to others, who may steal his invention; and therefore it is that he comes for a patent as soon as he has his ideas sufficiently matured, though not perfected; but then, to guard against his adding to his patent what he never thought of when he first applied for it, it is necessary that in coming for a patent he should deposit an outline description of it which is not to exceed all he specifies in the complete description, in order that he may not, under pretence of securing his invention, in truth unjustly prejudice other inventors in the same direction as himself.

2798. (To Mr. Solicitor-general.) Have you anything to add to what the Master of the Rolls has stated upon the points to which he has adverted?

I quite concur with the Master of the Rolls; I do not see any real practical difficulty in appointing the officers who are named in the second clause; namely, the Lord Chancellor, the Master of the Rolls, and the law officers; the principal subject-matter to which they are to attend being the making of rules and regulations; that will be the only work which they will have to perform, because though, as has been mentioned, they will have ministerial duties, the ministerial duties of those officers will be next to nothing; the ministerial duty will fall upon the examiner who is to examine the objections made to patents, and upon the law officers, to whom there is to be an appeal; with respect to the 4th clause, I have only this observation to make, which applies to the whole arrangement under the Act respecting officers. Mr. Webster states that his conception in framing this Bill in its present form was, that there should be two offices, one as it were a private office, which should be an office of record, but not an office for general search for the public; and another, an office under the Commissioners, which should be for the purpose of facilitating searches; that seems, perhaps, to be reducing it to as few offices as the number can well be reduced to. If that be so, it only shows me that it would be desirable to make this clear and definite. But you have said here, that the petition shall be left at such office as the Commissioners may direct; that does not sufficiently point out that you are to have two offices; they may direct it to be at their own office. I think, whatever you wish to be done should be pointed out clearly in the Act. The Commissioners might say the Great Seal Patent Office shall be the office; I think, whether you have two offices or one, whatever the intention is, it should be clearly expressed. I think it extremely desirable that there should be an arrangement by which a patentee should have only to go to one office when he wants his patent; that he should not go from office to office, but should have only one office to which to go, and that the public also should have only one office to go to, where everything should be done for them. The same observation, as to the want of a little more point and definiteness, occurs in the 5th clause; I do not know that it is intended that the person there mentioned shall be different from the examiner, or whether he shall be one of the examiners; I think that should be made a little more definite. Then I come to the more important and substantial point which has been suggested by the Master of the Rolls. What I understand the Master of the Rolls to say is this, that he would in all cases give an opportunity to a person to register his full specification, if he thought proper, in order that he might have protection by the registration of that specification, and have his invention before the public eye, in order to raise money upon it, retaining the power at his election of depositing a mere outline specification. I am not quite clear that he would not be able to register a full specification, if he thought fit, under this clause. He might call it what he pleased; but I am not sure that he might

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not make a full and complete specification of the whole of his patent, just as he would do, or intend to do, when he came to the full specification, which he would bring into the market in the same manner as another person proceeds in his provisional specification, with this additional advantage, that it would be more complete and more intelligible. Another advantage of the entire specification would be this : that parties dealing with him would say, " Now we know exactly the species of patent which you apply for, and we can take it to our legal adviser to see how far in this shape it will be a valid patent."

The Master of the Rolls. The provisional specification contemplated by this Bill as altered, would not be made public. The person who made it would be at liberty to alter it as he thought fit, at any time before complete specification, and he might abandon it altogether. There is a considerable advantage in allowing a person without any payment of fees, to obtain assistance from the public, for the purpose of carrying his invention into effect, but as a condition for that, it is proper I think to impose upon him this as a preliminary requisite, that he shall make his invention known to the public, and this can only be done by requiring that in every such case a complete specification should be enrolled ; but in every case where a man wishes to obtain pecuniary assistance, to enable him to take out his patent, he should only obtain the means of doing so upon the enrolment of a complete and perfect specification, which would tell the public the full extent of his invention ; if he did not at the end of six months pay the fee, and complete the patent, there would be still specification enrolled, telling the public what his invention was—that is a complete publication. It would give the public the advantage of that discovery, and no person could afterwards take up that discovery for the purpose of obtaining a patent for it ; but if he deposited an outline description, or what is here called a provisional specification, if he could not raise money upon it, the public would know nothing about it, and they would be in the same situation that they are at present.

2799. The 13th clause of Bill No. 2, provides that the inventor shall deposit in such office an instrument in writing, to be called a provisional specification, particularly describing and ascertaining the nature of such invention. The 4th and 5th clauses of the present Bill provide that he shall leave " a statement in writing, hereinafter called a provisional specification," which describes the nature of the invention ; do you conceive that there is any material difference between " describing the nature of the invention," and " particularly describing and ascertaining the nature?"

Yes, I consider that there is a very material distinction ; I believe the term " specification," till it was introduced into those 4th and 5th clauses of the Bill, has never before been used for anything but a complete and perfect description of the patent to its full extent, not afterwards susceptible of alteration ; I believe it has always been considered, that enrolling the specification meant specifying every thing relating to the patent. The distinction between the two is this : there is an outline description deposited with the Attorney or Solicitor-general now ; there is a particular description which is otherwise called the specification, which is enrolled when the patentee obtains his patent. The particular description or the specification is, that which is referred to in the 13th clause of the Bill as it stood. That was the intention of it, and that was what was meant to be made perfect ; but here, though the word " specification " is used in the 4th and 5th clauses of the Bill as altered, it is evidently not intended to be the specification in the ordinary sense of the word, upon which the patent rests, but it is intended to be such a description as you may afterwards add to, or change, or vary, provided you keep within the limits of the description which you have there made. This is called in the 13th clause of the original Bill a provisional specification ; for this reason, it is a specification in the ordinary sense of the word, so far as it is incapable of alteration or addition, but it is provisional in this sense, that if the fees are not paid at the end of six months, though the specification remains, the patent drops ; now the specification ceases to be provisional if the man takes out his patent ; it then becomes complete and perfect ; but whether he takes out the patent or not, in either case he cannot alter it, or change it, except so far as he may do so under Lord Brougham's Act ; if he should take out the patent ; this will be evident by referring to the end of the 13th clause, where it is proposed to be enacted, that the provisional specification shall be deemed to be the description of such invention, and that no other specification shall be filed or deposited in respect thereof,
provided

provided that the provisions of Lord Brougham's Act shall be applicable to it; that is to say, the party may disclaim, and so alter it by that mode of disclaimer. It is therefore provisional only to this extent, that if he does not take out a patent, it ceases to be the specification of a patent, and it then becomes the specification or publication of an invention for which no patent exists, or can afterwards exist lawfully.

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2800. Do you think it necessary or desirable that the provisional specification should be made known to the public during the six months which intervene between putting in this provisional specification and the complete specification?

If your Lordship is speaking of the provisional specification mentioned in the 5th and 6th clauses of the Bill we are now discussing, I do not at all consider it necessary that that should be made public, nor does this Bill contemplate that it should be so; but if you are speaking of the words "provisional specification" under the 13th clause, which provides that you shall not alter or add to it, then I consider that it is essential that it should be public. It must be borne in mind, that the letters patent date back from the period when the first application is made, so that in case of an outline description, which I prefer to call it in order to make my meaning clear, you do get a protection by dating back the letters patent, which is now contrary to the statute of Henry the Seventh, but which you repeal for that purpose. You get that protection in the case of a patent being taken out on that description, in which case only it will be made public. But supposing no patent is taken out at all, there may be a very valuable invention, of which the public knows nothing, because it is contained merely in an outline description, of which the public is wholly ignorant.

2801. Is not it contemplated that, in case of the outline description not being followed up by a complete specification, the outline description, at the expiry of the six months, shall become the property of the public, and would be made known to the public?

No, that is not contemplated; and that would be a very considerable and material change; certainly it is not so in the clause as it now stands. As the law now stands, a man applies for a patent, and he deposits an outline description, believing that he shall be able to mature it in six months; he finds in six months that he is not able to mature it, upon which he allows the thing to drop altogether; but he says, "Still this is my invention, and if I can mature it in the course of 12 months, nobody will know anything about it, and I will apply again for a new patent," and he does so; but he does not forfeit his invention by the fact of having lodged an outline description, which is intended to be nothing more than a check upon him to show that he comes *bonâ fide* for something which he had in substance invented at that period, and not for something which he intended to invent. It is a mere private communication now between him and the law officers of the Crown, and is intended, as I presume, by this Bill, to be a mere private communication to test his *bona fides*, in like manner, between himself and the Commissioners, or the persons appointed to examine it.

2802. Would the insertion of the words which are in the 13th clause of Bill No. 2, "and in what manner the same is to be performed," in the 5th clause of the present Bill, obviate the objection which you entertain?

Not unless you went on to say, as you do at the end of the 13th clause, that no other specifications shall be filed or deposited in respect thereof; if you did that, then it would only come to what Lord Granville stated, that you would not allow letters patent to be granted in any case, without the person who applied for letters patent depositing a complete and perfect specification, in which case you would of course get rid of outline descriptions altogether, which, as the law now stands, I believe to be a very useful check upon persons applying for patents.

2803. Are the Committee to understand that what you would propose would be merely to give the party the power of antedating his patent from the period when he first gave in his outline description, or would you enable the party giving in his outline description to object to a patent being granted to another person who might be able to give in a perfect description previously to the first applicant being able to give one in?

It would effect both objects. The man having deposited his outline description has a vested right in that invention, assuming that he enrols his specification within the period appointed by law. Then, when he gets his patent at the time appointed

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by law, that patent would bear date from the time of the deposit of his outline description; it would also exclude any one who came with a perfect specification in the meantime; it would produce both effects.

2804. Is not the point which is now under consideration, whether there should be one mode of proceeding open to an inventor or two? According to your plan an inventor would have the option of either putting in a full specification, which he would not be at liberty to amend, which would give him the power to use and publish his invention for the space of six months, he of course losing that protection at the end of that period; or he might take the other course, of depositing, not a full specification, but an outline description, which might be amended at the discretion of the law officers, he being restricted from exceeding the principle of the first outline description, but enabled to fill up the details; whereas it is proposed in the draft Bill which is now submitted to the Committee, that there should be only one mode of proceeding, and that a person depositing an outline description of his invention should be entitled to a sort of provisional registration, although that description did not amount to a full specification?

I think it desirable that there should be two modes of proceeding, provided you maintain the present system of law; one mode I consider to be this: a man applies for a patent for an invention, of which he has formed a tolerably perfect idea in his mind, but which he has not worked out in detail. Being desirous to obtain a protection for his invention as soon as possible, he applies to the proper office for a patent. That is granted to him upon condition of his depositing an outline description of his invention; that outline description is not made public; he is allowed six months before he enrolls his specification under that patent; he has this advantage, that if he cannot complete his specification, the whole matter drops to the ground, and his invention becomes known to no one; but if he can enrol his specification within the proper time, then his specification gives him a right to the invention from the time when he first applied and deposited his outline description, and excludes any person who comes with a perfect description in the meantime. That is the case of a man who has abundance of capital, which, in many cases, for the purpose of working out these inventions, is very necessary, in order to try them. The mere fact of trying experiments very often requires a vast deal of money, and it is frequently found, that in trying to carry his invention into effect, he discovers new features in the invention, new relations and new principles, which enable him to say, "My first outline description would not be sufficient, I must begin all over again." If his first description were made public, it would teach the public what he was about, and then it is, that by the expenditure of his money, and the exertion of his own mind, that he has discovered some further invention, by means of which he can perfect and complete the invention for a part of which he first applied for a patent. When this occurs, he will probably abandon the former one, and begin over again. That is one view of the case. Another case is that of a man who has not any great amount of capital, and has not the means of doing that, but who believes he has an invention which is a very admirable one, and which, if he made known to the public, he would get a great number of persons to advance him money upon. His complaint now is, that he cannot get money for that purpose without explaining his invention to some persons who refuse to give him money, but who go and take out a patent for the same invention; that is the complaint which is now made.

2805. If those persons can go and take out a patent for the same invention, why cannot he himself do so?

He has not the money requisite for the purpose. He has his invention, which is contained in this piece of paper which he has written, but he has not a penny in the world. His complaint now is, that if he goes to the capitalist or to a patent agent, the patent agent says, "I must know what your invention is." Upon its being explained, he may say, "Your invention is worth nothing; you will not get anybody to give you anything for it." If he applies to another patent agent, he says exactly the same thing may happen. The patent agent, however, on thinking it over, sees there is something in it, and he goes and applies for the patent as being himself the inventor, and so obtains the fruit of the inventor's labour, without that inventor gaining any advantage from it. But if this man for a small sum of money, such as 2*l.*, which was proposed in the original Bill, can go with his specification to the Commissioners, and say, "I wish to enrol that

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as my provisional specification," that is made public, and then, upon the condition of that being made public, he obtains protection for six months to enable him to pay the fees, and as the invention is made public by enrolment, no one else can make use of it except by assisting him. He goes to a capitalist, who says, "There is a great deal in your invention, and I will advance you money requisite to pay the fees, provided you give me an interest in your patent. And so the original inventor obtains a benefit by that means. As it is enrolled, if the capitalist says "I will not advance you any money," he cannot make use of it, because, it being published to the world, nobody else can make use of the invention, and at the same time the public obtain the benefit of an invention not subject to any monopoly; therefore, I have thought, assuming patents to be expensive, which, under the present system they are, that this mode would obviate that particular evil, and might enable you to proceed by both systems.

2806. Cannot both those proceedings take place under the Bill as it now stands?

At the time the complete specification is enrolled under the Bill, as it is amended by Mr. Webster, every fee must be paid up.

2807. When the patent is complete?

Yes.

2808. The case of the poor man would be this, that he would get first of all provisional protection, he would then have the option of making it public?

Yes, if he adopted the same course that the rich man takes, but then he would do what the rich man does, and never make it public. He would only disclose it to the particular person to whom he showed it.

2809. He may if he chooses make the invention public to 20 manufacturers, in order to induce some one to assist him; as he has perfect protection, no other person can come in and deprive him of his patent, and if he can obtain money, then he is able to complete and pay the other fees?

It does not appear to me, for the reason I have already stated, that he has protection at all. It is not made public as the provision stands in this Bill. There is not such a publication as will prevent any other person from taking out a patent for the same thing.

Mr. *Webster*. My impression was, that you could do what has been done at the Great Exhibition, there there have been 500 inventions provisionally protected, under the Extension of Designs Act; but there there is this restriction, that the party can only use or show his invention there; but in this case, he can deal with it in the same manner as if he had a patent.

The *Master of the Rolls*. My complaint is, that under what this Bill, as altered, calls provisional specification, he would have no motive for making it public; he would, in truth, never disclose it, except to the particular person to whom he communicated his invention; it would remain in his option, and, practically, he would never make it public, because no man wishes to make his invention public. It is proposed by the 13th clause of the original Bill, that as a condition for obtaining protection, and a means of obtaining pecuniary assistance, he shall be compelled to make it public, in the sense of making it public property; I do not see how he is to do this, except by enrolling a complete and perfect specification. The fact of a man having enrolled a provisional specification, or, in other words, an outline description, would never be an objection to subsequent letters patent being obtained for the same invention, on the ground that it had been made public: if he enrolled his provisional specification under the 13th clause, he would not, in the first instance, have to pay all the fees which would be necessary for making the perfect specification after an outline description. If he deposits a provisional specification under the 5th clause of the altered Bill, it is not enrolled, and it is not made public to the world.

2810. Your object is twofold; to protect the poor inventor on the one hand, and on the other, to secure to the public the discovery of something which has been already invented; could not those objects be attained by leaving this clause as it is now proposed, in the third Bill: is it impossible to provide for the publication of all outline descriptions at the expiration of the six months?

I think it is impossible to provide for the publication of all outline descriptions at the expiration of the six months.

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2811. There have been strong objections entertained to persons applying for patents when they have only mere ideas; and a very strong feeling has been expressed by manufacturers that they should not come till their inventions are in a matured state?

The invention must either be required to be completely matured, or you cannot prevent their coming at any period. I am disposed to think it would be better that no man should come till his invention is in a perfect state, in which case the 13th clause is wholly unnecessary.

Mr. *Solicitor-general*. I think the object of the Master of the Rolls would be attained by an intermediate clause between the 5th and 6th, this provisional specification being called an outline description, or another clause, stating, that he may put in a full specification, applying the 6th clause only to the full specification.

2812. Would not it be very difficult to give an outline description which would not be vague and ambiguous?

It would, no doubt; this case has occurred to me within the last fortnight. A patent was obtained in 1844 for making corks in a certain manner, which were then intended to be made of caoutchouc, or of a mixture of caoutchouc and sawdust. In his outline description, the party said it might be done with any water-proof material. Within the six months gutta percha was brought to this country: he then filled up the specification, making gutta percha very prominent, but still he was obliged to make it tally with his outline. He came to me about a fortnight ago to disclaim, as he called it, part of his patent. If he had disclaimed it, it would have made it a patent as from the date of 1844, for the use of gutta percha. It was opposed, and I think I had three hours' discussion before me. It ended, after great pains, with this, that we were obliged to let him disclaim parts of it; but perceiving his object, I think we so managed that it was impossible for him to get any advantage.

2813. (To the *Master of the Rolls*.) Do you recommend the Committee to adhere to the clauses as they stood in the original Bill?

No, I do not say that. The object that was intended to be secured by the 13th clause, I think, is a useful object, and ought to be secured by some clause in the Bill as it now stands. With respect to clauses 7 and 8, I have very considerable doubts about the system which, I think, is likely to be introduced. I think it essential that there should be an opportunity of opposing the granting of letters patent, and that it is essential you should allow a person to oppose the granting of letters patent. If you do not, very serious evils will arise. A man may take out a simulated imitation of a patent, or something which is very near it, and may go to all persons who are making use of it, and say, "Unless you take a license from me, which you shall have very cheap, I will bring an action against you for the infringement of my patent." There are very few persons who are making use of any invention who would not rather pay 1 *l.* or 2 *l.* than go to the expense of litigating so serious a question as is involved in an action upon *scire facias* for the repeal of a patent. I think, therefore, it is essential that there should be some means of opposing the taking out of a patent, and that one person should be able to prevent another from taking out a patent in certain cases. The only question is, upon what grounds a party should be allowed to oppose, and I am disposed to think that the only ground upon which a person should be allowed to oppose the taking out of a patent is, that he himself has a patent for the same invention. I am somewhat disposed to think so, though I do not give that as an opinion, the result of consideration, which satisfies me perfectly of its correctness; but I wish to point out to your Lordships what I think would be the effect of this clause as it now stands. You propose that there should be an advertisement by which any person may oppose the grant of a patent; that he may oppose it upon any legal grounds; that is to say, that the invention is not new, or that it is not useful. Those are the two principal grounds which are usually employed. In fact, you would then be trying an action of *scire facias* before the grant of the patent. You would have to go into the evidence exactly in the same way that you would have now to go into it, in order to decide whether the patent is a good one or not. I do not understand from this Bill that the decision is proposed to be final. If it be final, I should think that a very serious matter, because it might be that a person might not have heard of the patent being about to be granted, and that he might be able clearly to prove that the invention was not new, for
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that he himself had made use of it, and that he might be at liberty to resist the patent after it has been granted. If not final, the only effect will be having a long hearing, without making it really valuable. Again, objections are to be put in writing. That is introducing a system of pleading, because it is nothing more nor less: he is to state his objections in writing, and the Commissioners are to consider this question: Is he to be allowed to go out of the objections which he states, or is he to be confined to them? If he is not to be confined to them, why should he state them in writing?

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2814. Ought not he to be confined to them?

I suppose he ought; but then all the usual difficulties now found to exist in cases of written pleadings will exist. Questions of this kind would arise: Does this come within the written objection or not? You decide, it does, or does not. Is that decision to be final? Upon those points, you would really have in a great many cases a long and difficult hearing; just as difficult as you have in cases now tried in courts of law, with as much technical learning and argument. Now, to illustrate this, take any subject of very great difficulty, such a one, for instance, as used to give me more trouble as Attorney-general than almost any other which I had before me. I refer to cases of opposed patents, in relation to the electric telegraph, which involve matters singularly difficult and complicated. In a court of law the other day, you had a most difficult and complicated trial, lasting for a great number of days, with an enormous number of scientific witnesses, and a great expense, for the purpose of getting rid of a patent, on the ground that it was not a valid one. What is there to prevent exactly the same cause and the same expense taking place before the examiner, and after that an appeal to the law officers of the Crown, and, when that is done, the patent is granted, and you may have an action upon a *scire facias*, and the whole matter gone over again, upon an action to repeal the patent. In cases, such, for example, as the electric telegraph, where the question is between two companies, both of them very rich, you would have parties able to bear the expense of such a contest, but not, I think, with any beneficial result. The litigation and expense might benefit the lawyers very much, but I doubt very much whether it would benefit the public or the patentees. I think there is nothing more important for your Lordships to look to in the framing of this Bill, than to specify, with great exactness and distinctness, what should be the preliminary proceedings in the way of opposition; that is to say, the trial which is to take place before the patent is granted. Practically speaking, as the law now stands, nothing takes place further than this: a man comes before the Attorney or Solicitor-general, and says, "This patent is about to be taken out for something which I have myself discovered." The Attorney-general asks him the question, "What is it which you have discovered?" He tells him his invention as well as he can; he then leaves the room; and then the other man comes to the Attorney-general, and says, "This is my invention," and he describes it; then the Attorney-general, without talking to the two persons together, compares the two statements, and sees whether they are the same or not. That is, no doubt, a clumsy and bungling mode of proceeding, and it would be desirable to supersede it if you have a useful substitute; but I do not see how you can make the inquiry suggested by this clause, without a regular trial of the patent, if you are to discuss the propriety of granting it upon the question of the novelty and utility of the invention. This is a difficulty which is inherent in the subject-matter itself. The whole of the patent law is exceedingly difficult, particularly in practice. One great difficulty arises from the impossibility of defining what is useful and what is new. Nobody I have ever yet known has been able to arrive at a satisfactory definition, precisely to ascertain in any case what is a new and what is a useful invention. The cases at law, which are very numerous, give a sort of rough definition upon the matter; but the judges have found themselves totally at a loss to do more than decide in each individual case what, in their opinion, is new or useful. I believe you will find that all these difficulties will have to be tried before the examiners and the law officers, and you may give rise to a great deal of expense before the person obtains a patent; and it is very important, therefore, that you should endeavour to define it as accurately as you possibly can.

2815. How would you define it, so as to avoid what is the great evil now, namely, the chance of an ingenious man, who is not the real inventor, but who has only invented a portion of that for which he purposes to obtain a patent, obtaining

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a knowledge of the further step which his adversary has taken, so as to enable him to claim the merit of it to himself?

I do not see how you can do it in any other way than by making the communication secret on both sides; but as I understand this clause, it proposes to go further than that. The law officer to whom the application is referred is to report as to the novelty of the invention. Can he do that without hearing evidence? Is any man competent to do so? I doubt very much if any man would be competent to say in every case, whether an invention is a new one, without hearing evidence upon the subject, and probably he would find it very difficult to arrive at a conclusion, after he had heard the evidence, always bearing in mind the great difficulty which is inherent in the subject. If the decision of the examiner were to be final, I can understand that it might be a great advantage to have this preliminary examination, but it is not proposed, nor do I well see how it could be proposed, that it should be final.

2816. One object proposed in this Bill is to give additional assistance to the law officers of the Crown, and an additional security to the parties?

If your Lordship refers to the 7th clause, you will see these words, "and having examined the applicant and opponents respectively, if necessary, shall report to the law officer to whom the application is referred, as to the novelty of the invention, and as to any grounds which may affect the granting of the letters patent;" that would of course include the utility. Are the opponents to know what the letters patent are? if not, you are examining them both in the dark. If they are, you are producing the exact evil they now complain of, which is, that one man opposes for the purpose of knowing what the other man's invention is. How can you ascertain accurately the novelty of the invention in difficult cases, without hearing evidence in open court; and how can that be obtained without making the invention public? I had the greatest possible difficulty in carrying this into effect; I am disposed to think that the safest way is to leave the question of the validity of a patent to be decided by an action at law, where, after it has been granted, I believe it would be better tried than anywhere else, and not on a question as to the propriety of granting the patent. By the 13th clause of this Bill it is provided, that publication abroad should be equivalent to a publication in this country, which appears to me very important and very advantageous. Then ought not the publication abroad to be a matter to be inquired into? That might be one of the grounds which might affect the granting of letters patent, and which the opponents would be entitled to bring forward.

2817. (To the *Solicitor-general*.) Do you concur in opinion with the Master of the Rolls?

I fully agree with the Master of the Rolls that there is very great force in what has been said as to parties being put to great expense in the contest before the examiners, or before the law officers; I think at the same time, possibly, that the expense might be diminished, and the clause might be guarded in one or two ways. It might be restricted in this way, that nobody should be allowed to object but a patentee in respect of some prior patent, and the inquiry should be limited, therefore, as to whether it is an infringement of his patent; or you might shut out all *vivâ voce* evidence, by saying that the parties to whom the application is referred shall inquire as to the novelty of the invention, so far as the same can be explained by documentary evidence, so excluding the mention of *vivâ voce* evidence.

2818. Should you object to both those limitations being inserted in the Bill?

For my own part, I should rather feel inclined to allow a manufacturer who was using any particular process, to come and show that he ought not to be interfered with by some man having a patent granted to him, and a right of action thereby conferred upon him, which would put the manufacturer to great expense and inconvenience.

The *Master of the Rolls*. Will your Lordship allow me to suggest this case, which is to be found in the Reports: A man really and *bonâ fide* invented a mode of making wheels, by which the spokes of the wheels had the effect of cords; the axle was supported by the spokes from above, and did not rest upon those below; this was found to be a very useful invention. The patent obtained, and an action brought for the infringement; that action was resisted, and the opponent brought evidence to show that Messrs. Strutt, at Belper, had made and used carts, with

with wheels of that description, some years before the patent was granted, but for which they had taken out no patent. Suppose that case, and that the person who had made and used these carts never heard of the patent being applied; would you allow the patentee to prevent those persons from using their own invention, which you must do, unless you allow the patent to be resisted afterwards? I think the trial of the question of novelty and utility, in fact, the trial of the validity of the patent before it is granted, is a very difficult matter, and one which it would be far from easy to bring within safe limits; and if you adopted it, then you ought to make the decision upon the validity of the patent final.

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2819. What is your objection to a system by which patents should be merely registered, leaving the parties to fight them out in a court of law afterwards?

Patents would be taken out then for the mere purpose of extorting money.

Mr. *Solicitor-general*. Perhaps your Lordships will allow me to mention a case which occurred in my own experience: a man who said he had a patent for cabs, went round to every poor cab proprietor who had a cab of a certain construction, and said, "You are using one of my cabs;" he extracted from a number of those cab proprietors 10s. At last a case came before me, in which one man had thought fit to resist. He filed a bill against him; he had done that with six or seven other proprietors, and by the threat of proceedings in Chancery he had accomplished his object. At last one man resisted, and the moment we came to look into his patent, we found that it was not worth a farthing.

The *Master of the Rolls*. Any man would have been advised by his friend to have paid 10s. rather than to have resisted it; that shows that there ought to be some mode of opposition to the grant of letters patent. I am disposed to think that the inquiry should be confined to this, that any person might oppose the grant of a patent upon the ground that he is interested in an existing invention which will be interfered with. The examiner, having then examined both parties separately, must determine for himself whether the invention is the same or not.

2820. Without calling any evidence?

Without calling any evidence; it would be the mere comparison of two pieces of paper.

2821. (To the *Master of the Rolls*.) Did not you describe that which is the system at present, as a clumsy and inconvenient process?

It is so; but I do not see, at present at least, what you can substitute for it which will not lead to some evils. If you examine them in the presence of each other, which would be the proper mode of doing it, you necessarily communicate to each the invention of the other, and give rise to the very evil which they say is the great objection to the present system; of course there is always this objection to the system, which is what makes it so clumsy and inconvenient, that when you examine two men in private respecting their inventions, you may believe that, in fact, each has exactly the invention of the other man, though expressed in other words. It has happened to me repeatedly to look at the two descriptions together, and to believe that they are the same. Then, I ask each contending party to come in, and then I examine each separately upon his invention: but I cannot put leading questions to either of them, because if I do, I disclose to him the secret of the other man, and I must beat about the bush to try to induce him to say incidentally that which is his invention, without showing him that to which I am specifically pointing: a more inconvenient or embarrassing mode of examination I cannot conceive. I approve very highly of putting in the grounds of opposition in writing, and that those should be preserved.

2822. Have you a decided objection to following the course of proceeding taken by scientific bodies, who, when a paper is brought before them, have to decide the question of novelty and utility. The practice is to refer such papers to one or two persons who are supposed to be most conversant with the particular subject; they do not call evidence, but it is presumed that they know all that has been done before, or that they take proper steps to inform themselves as to what has been done before. In the case of the Royal Society, papers which are supposed to contain nothing valuable are sent to the archives, but during the last 25 years there have been but two papers as to which there has been any probability that mistakes have been made?

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I believe if it were to be done at all, that would be the best mode of doing it; but I wish to suggest this difficulty: supposing, in the case of any particular paper, a large sum of money was depending upon it, would you decide against the man without hearing him; would not you allow him to be heard upon the matter? If so, you must hear evidence. When your Lordship, as President of the Royal Society, a body who perform all their functions most remarkably well, reject certain papers, and refuse to publish them to the world, you inflict, comparatively speaking, no injury upon the man if you make a mistake, for he may publish the papers himself; but if upon the fact of your making a mistake or not depends the question whether a man shall be ruined (because he may have laid out all his fortune in bringing an invention to perfection), your Lordship would hesitate a long while before you would refuse to allow him to have his patent without hearing what he had to say upon the matter.

2823. Would not the party be at liberty to go to a court of law?

If you refused the man his patent, he would not be able to go to a court of law. There is one other point which I wish to suggest to the Committee respecting the 22d clause; I think the power to make disclaimers has been exceedingly useful, and most beneficial; but I am disposed to think that there should be this condition attached to it, that when a patentee disclaims, he should not be allowed to bring any action for any infringement of the patent prior to the date of the enrolment of the disclaimer.

2824. Would you include a clause in the Act of Parliament, to the effect that no action should be brought for infringement prior to the filing of the disclaimer, or would you empower the law officers to make that a condition?

I would propose that that should be a condition in all cases, unless the law officers of the Crown, for some reason to be stated, thought fit to dispense with it.

2825. (To Mr. *Solicitor-general*.) Do you concur in that suggestion?

I do. There is one point which has suggested itself to me upon the 10th clause: you allow a man to come at the end of ten years, and to obtain an extension, as a matter of course, on the payment of the fee. It appears to me, that it would be desirable that you should require that man to state that there had been some user during that long period. I have been told of a case, though I cannot give it as a fact in evidence, of an useful invention in oil for lamps, making them give a very brilliant light; it was thought to be exceedingly useful, and the patentee had a very large sum offered him for his invention soon after it came out; it has been bought up, and has never been used; and the patentee has discovered that it was bought up by the gas companies, the public being thereby deprived of the use of it.

2826. Though you are not personally acquainted with the fact which you have mentioned, is it one which, under the present law, might occur?

Yes; I give it as an illustration of what might occur under the present law.

Mr. *Webster*. I know it was said in the case of gun cotton, that it was bought up by the powder manufacturers.

2827. (To the *Master of the Rolls*.) Do you see any objection to a condition requiring user being introduced?

No.

2828. In your opinion, is it possible to devise a system of patent law which shall confer advantage both upon the inventor and the public?

I think the principle of the patent law is very defective. I think it is a wrong principle to reward inventions by giving a monopoly; and I also think that the inventor does not get the real benefit of the patent. In the greater number of cases, I believe that the person who takes out a patent, and who makes the patent useful, is some one who finds out the little thing at the end which just makes it applicable and useful. All great inventions, I think, are arrived at by a long series of steps; and those persons who have made the discovery of the great principle upon which they are founded, are not the persons who really benefit by them; I think the system is defective in principle.

2829. (To Mr. *Solicitor-general*.) Does your opinion upon this subject coincide with that of the Master of the Rolls?

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It is a very wide subject, which appears to me to require a great deal of consideration; it is connected with the question of copyright and many others, which involve many very important considerations.

2830. (To the *Master of the Rolls*.) Do you think that in the case of actions of infringement for an alleged use in a foreign country, that country ought to be specified?

I think so.

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The Witnesses withdrew.

Ordered, That this Committee be adjourned.

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A P P E N D I X.

APPENDIX A.

QUESTIONS addressed by the Committee to JOHN LEWIS RICARDO, Esquire,
a Member of the House of Commons, and his Answers thereto.

Die Martis, 17^o Junii, 1851.

ARE you a patentee ?

I am, a very large one.

Have you watched the working of the present patent system ?

I naturally have done so, having been very much interested in patents of various kinds ; I have watched their operation as well as I could ; I have always fancied that some change would be required in respect to the law of patents ; and, with a view to the question coming into debate in the House of Commons, I have taken some trouble with it.

Will you state to the Committee the result of your experience ?

The result of my experience and my observation has been a conviction that the whole system of granting patents at all is very injurious to the community generally, and certainly not of any advantage whatever to the inventor ; I consider that it is in a great measure a delusion upon the inventor to suppose that the patent privileges which are granted to him render his invention more valuable than it would be, supposing there did not exist any monopoly with regard to it.

Do you know of other persons who would support that view of yours ?

I believe it is generally supposed, and I have heard it said, that all authorities, both legal and economical, are in favour of a departure, so far as regards patents for inventions, from the strict rule of political economy, which inculcates that there should be no such thing as a monopoly ; but I have taken some trouble to look into the question, and I do not think that that opinion is borne out by what is exactly the truth. M. Say, who is one of the greatest French political economists, says, that “ he considers a patent as a recompense which the Government grants to the inventor at the expense of the consumer.” He says further, “ Ce qui fait que les Gouvernements se laissent entraîner si facilement par ces mesures, c’est d’une part qu’on leur présente le gain sans s’embarrasser de rechercher par qui et comment il est payé, et d’une autre part que ces prétendus gains peuvent être bien ou mal, à tort ou à raison appréciés par des calculs numériques, tandis que l’inconvénient, tandis que la perte affectant plusieurs parties du corps social, et l’affectant d’une manière indirecte, compliquée et générale, échappent entièrement au calcul.” Then there is the opinion of Lord Kenyon, which I would also quote, that was expressed in giving judgment in the case of *Hornblower* against *Bolton* : he says, “ I confess I am not one of those who greatly favour patents ; for although in many instances, and particularly in this, the public are greatly favoured by them ; yet, on striking the balance on this subject, I think that great oppression is practised on inferior mechanics by those who are more opulent.” Lord Erskine stated that the “ ideas of the learned Judges had been very different as to the advantages to the public since the statute giving those monopolies.” And Lord Bacon, in that part of his works entitled “ *Advice to Sir George Villiers*,” says, “ Especial care must be taken that monopolies, which are the canker of all trading, be not admitted under the specious pretext of public good.” I have ventured to quote these authorities, because I know it is generally stated that all authorities, economical and legal, are in favour of the system of granting patents for inventions.

Will you describe your own practical experience as to how you think the present system affects the public ?

The most obvious way in which it affects the public is, that during the term of a patent a patentee can charge a higher price for the article which he manufactures than will give him a fair trade profit. Naturally his object in obtaining a patent at all is that he may have the whole control of the market. Of course he uses that control to charge a very high price for an article which otherwise would be manufactured for a much lower sum.

How does the system affect the question with respect to the competition between foreigners and the manufacturers of this country ?

I am speaking, of course, of patents as they regard this country. The system affects this country, in my opinion, very injuriously, because, if a thing here is worked under a patent, whereas abroad it is worked under a system of free competition, naturally the article would be much cheaper abroad than it is here. That tells more particularly in any process of manufacture. Supposing there be a patent for only one part of a manufacture, all the manufacturers of that article abroad may use the process of the patentee ; whereas only one

manufacturer in this country, the man who holds the patent, is enabled to use that particular process in making the article in which the whole trade competes with foreigners in third markets.

Having that opinion, probably you approve of the clause in Bill (No. 2), the Government Bill, which would prevent an importer of foreign inventions being protected by a patent in this country ?

I would rather not give any opinion upon these Bills ; I do not consider that I am competent to give an opinion upon the Bills themselves ; it is upon the system, the principle, rather, that I would prefer to offer any evidence. My opinion is, that there should be no patents allowed to be taken out at all. Certainly, it follows naturally, in answer to your Lordship's question, that my opinion must be still stronger that no invention should be imported into this country and used as a monopoly, because I conceive that the only possible excuse (though it is one the validity of which I do not admit) for granting a monopoly would be that it encourages English inventors. I do not know whether it is worth while to call the attention of the Committee to a circumstance which happened long since, showing how the course which I have just mentioned in respect to competition in any particular trade works. When the French East India Company was first established, they had a monopoly for trading with the Indies ; they found, notwithstanding that they had the whole trade in their hands, they failed altogether. It was rather a ruinous undertaking ; accordingly they gave it up, to a certain extent—not formally, but the trade was allowed to be open, and many people traded to India, and made very great profits ; but when this French East India Company saw that profits were made by individuals, though they themselves as a company had not made any, they wanted to get that monopoly back again. They therefore again claimed their charter, and prevented all ships arriving from the Indies from landing their cargoes in French ports. At this time a ship arrived at St. Malo, commanded by a man of the name of Captain Lamerville, with an Indian cargo, but he found that he could not get admission to the harbour ; they would not allow him to land this cargo, because of its infringement of the monopoly of the company ; he therefore sailed away to Ostend, and there sold his goods at a great profit. The Governor of Antwerp heard of this, and he commissioned him to go back to India for another cargo. Accordingly he sailed again for India ; other people of the country did the same. The whole East Indian trade was directed upon the Netherlands, and France lost the trade completely, which went into the hands of her competitors. That is an instance showing how free trade will always work cheaper, better and with greater advantage than a trade under a monopoly of any description.

That affects rather the question of general monopolies than the monopoly granted to an inventor, does not it ?

I look upon the question of a monopoly with respect to a particular trade as being in exactly the same situation as a monopoly respecting any particular invention. The object of a patent is to monopolize a particular trade ; any charter granted to a company for any particular trade, in my opinion, is in exactly the same position as a patent granted to an individual for any particular machine or manufacture.

Some witnesses, who have had great experience in the working of the patent system in this country, have stated to the Committee that inventions are never bought up for the purpose of suppression ; have you any experience upon that subject ?

I cannot say that I have any personal experience of inventions being bought up for the purposes of suppression ; but I think the evidence of Mr. Newton, a patent agent, who was examined before the Committee of the House of Commons on the Patent Laws, which sat in 1829, was very strong to that effect ; he said, “ he was aware of a great many patents having been taken out where the invention was not carried into effect ; there was no mode of setting aside those patents, but it was desirable to provide the means, for he knew some very valuable inventions which, if they were in the hands of the public, would spread far and wide, and be very useful, but which for some cause or other were lying dormant.” I can easily conceive that it should be so in many cases ; if the patentee has a very large plant and very expensive machinery, by which he is enabled to carry out a particular process of manufacture, it is far more advisable for him, and far more to his interest, to purchase a patent which would supersede all that machinery, with a view of avoiding competition, and suppress it, than to destroy his machinery and replace it by new machinery altogether.

You stated that you yourself were possessed of a great many patents ; are all those patents which you use beneficially for the purposes of the public ?

No. I am speaking now more particularly of the company of which I am chairman, the Electric Telegraph Company, in which I have a large interest. Many of those patents have been bought by us simply to avoid litigation ; it is always much cheaper to buy a bad thing, and have it as one's own, than it is to litigate it when it is brought into competition against you, because though it may be a worse thing than you have already, yet still, in other hands, it interferes very much with the monopoly you have in respect to your patent. It is necessary for a patentee to litigate the infringement immediately that it is put into practice, and therefore he makes this calculation : as it will cost me 3,000 *l.* to bring an action against this man for an infringement of my patent, and he offers to sell me his patent for 2,000 *l.*, I think I had better buy it of him than incur the expense of the action.

It is difficult, is not it, to form any estimate of the sums spent by inventors in obtaining patents ?

There is a Return to the House of Commons, which I have with me, by which I find that between

between the years 1837 and 1848, there were on an average 450 patents taken out every year, for which a sum was actually paid at the offices for taking out the patents of 217,460 *l.* The average now is upwards of 500 patents a year, which will make something like 250,000 *l.* paid in 10 years for patents; this does not of course include the expense of experiments and getting up specifications, and the enormous amount which is expended upon law, and paid to patent agents, and in defending patents afterwards. It is impossible to estimate this even approximately, but it must be very enormous.

How is that money to be recovered by the patentee?

It can only be recovered by taxing the community to that extent. A man always calculates his profit according to what it cost him to manufacture the article; if he has paid 10,000 *l.* for his patent, it is quite clear he must receive interest upon that 10,000 *l.* before he can make any profit; and if he has invented half a dozen things, five of which have failed, and the sixth succeeded, he must take the whole of the six into his calculation before he can fix such a price upon his article as would give him a profit. It seems to be admitted by the Government, and by all Governments, that it is not fair to allow anybody to fix his own price for an article which he sells: there is, I believe, generally a clause in most grants of patents by which the public service is exempted from the operation of that particular patent, so that one injustice, the injustice of allowing the seller to fix his own price, is met by another, which allows the Government, as the buyer, to fix its own price in anything relating to the public service. I will take, for instance, the case of the marine glue, and Morton's patent slip, and several other cases, in which the Government have paid not the slightest attention to the rights of the patentee, but reserved to themselves the power of fixing their own price, which seems to me to be a kind of admission that the whole system is one which is not quite fair to the public, as it is shown by that, that they do not consider it fair to themselves. I wish to call the attention of the Committee to this fact, that it is generally supposed that the clause in the Act of James, by which patents for inventions were not exactly instituted, but continued, was introduced with a view of encouraging invention. It seems to be rather an anomaly that the Act which abolished all other monopolies should have instituted and recognized this one. I have taken some trouble to look into the matter, and I think it is quite clear that the object of continuing the patent privilege to inventors only, was for the purpose of raising revenue, and not for the purpose of encouraging invention. There were certain exemptions which were made in respect to monopolies which were already in existence: there was one exemption which had, in respect to certain charters, been granted for printing; I believe there is one monopoly still in existence for the printing of bibles and prayer-books. There was an exemption in respect of saltpetre, gunpowder and cannon-balls. Now those manufactures belonged to the King, and he sold gunpowder to the public at his own price, and maintained his monopoly simply for the purpose of revenue. There was another monopoly of alum: the monopoly with regard to alum was granted, originally, in the time of Henry VII.; it was granted for the importation of alum; but after that, a discovery was made by which they were able to manufacture alum in this country, and the King took the monopoly of this trade into his own hands. In 1608 there was a patent granted for manufacturing it in England, and he of course exempted that, when he abolished all other monopolies. The glass monopoly, which was another exemption, was one granted to one of the King's favourites; and also that for smelting iron with coal; that was granted to Lord Digby. And there was another monopoly granted in 1625, the year afterwards, to the Duchess of Richmond for making farthing tokens, which could have nothing to do with encouraging invention. Immediately on the passing of the Act of 1624, a great many of the most absurd inventions were brought out; patents were granted for every one of them. There was one "for making compound stuffs and waters extracted from certain minerals to prevent ships from burning in fights at sea;" for that grant 40*s.* a year was paid into the Exchequer. There was another "to multiply and make saltpetre in any open field of four acres of ground sufficient to serve all our dominions." There was another "to raise water from pits by fire." There was another "to make hard iron soft, and likewise copper tough and soft." There was then "an instrument called the Windmate, very profitable when common winds fail, for a more speedy passage of vessels becalmed on seas and rivers." There was one called "the Fish-call, or Looking-glass for Fishes in the Sea, very useful for fishermen to call all kinds of fishes to their nets or hooks, as several calls are needful for fowlers to call several kinds of fowls or birds to their nets or snares." I give these as a specimen of the sort of things for which patents were granted. I could give 50 more equally if not more ridiculous. All these paid a yearly rent into the Exchequer, more or less. It seems to have been almost arbitrary what amount should be paid, but those patents were granted on payment of a yearly rent; so much so, that it was supposed, and it is stated by Macpherson in his "Annals of Commerce," that the King derived 200,000 *l.* a year from those patents which he had granted. Not only did he grant patents for inventions so absurd as these, but he granted patents, among other things, for publishing lists of the prices of different articles; a patent for importing horses, another for exporting dogs, another for bringing water to London; and there was one, I believe, for letting out sedan chairs, and various monopolies of that kind; so much so, that there was a great deal of discontent in the public mind with respect to all those monopolies and privileges which were granted. Accordingly, in the year 1639, there was a proclamation—the date of the Act being 1624—in 1639, fifteen years after the Act was passed, there was a proclamation abolishing a great many of those privileges and patents. The preamble of the proclamation states, that "Whereas divers grants, licenses, privileges and commissions had been procured from the

King on pretences for the common good and profit of his subjects, which since, upon experience, have been found to be prejudicial and inconvenient to the people, and in their execution have been notoriously abused, he is now pleased to declare these following to be utterly void and revoked." Then there follows a long list of privileges and commissions which had been granted, and among others, it states, "all patents for new inventions not put in practice within three years from the date of their respective grants;" so that it seems quite clear that the object of the patent privilege for inventions, which was enacted in 1624, was not so much for the encouragement of inventions as for the purpose of raising a revenue independent of Parliament altogether.

Will you state what you meant, at the beginning of your evidence, by saying that patents work injuriously for inventors?

I believe the first patent on record is one which was granted by Edward III. It was a patent granted to two aldermen and a friar for making the philosopher's stone; I believe that is a type of the whole thing; I do not think any body makes an invention who does not imagine he has found the philosopher's stone. There is a great deal more disappointment than there is success; and, I believe, while regular competition is prevented, a no less dangerous but at the same time an unnatural and more formidable competition is engendered. If the invention be valueless, of course the inventor loses the large expense which he has been put to for experiments and the cost of taking out the patent; but, if it be valuable, no sooner has he got over his first difficulties, than up start 50 competitors—competitors who very likely would not have appeared if there had been no such thing as a patent. With the specifications of the invention before them, those men also take out a patent; they do not work it in exactly the same way; their object is to try and avoid the previous patent, by doing the same thing under another form, but very nearly in the same way as the original patentee, and there begins a war of patents which is accompanied by litigation to an extent which is far more costly and disadvantageous than the natural and regular competition which exists in all trades and manufactures which are not under any particular law. I have here only one leaf of Mr. Carpmal's index, but if your Lordships will take the trouble of looking over that, you will see how the thing works. There are no less than 21 patents taken out for making bricks; you will find them always together. The moment a patent is taken out, whatever it is for, out come 30 or 40 more of the same description; that is to say, if there be the least success attending the original patent. There are no less than 35 patents here for making boilers; probably some inventor took out a patent for a boiler which was very successful, and he sold a great many of them; accordingly every body set to work to make patent boilers; it is possible that those who are in the trade may know which is the best, but every boiler being patented, a man who has to buy a boiler can scarcely ascertain which is the best patent. There is no particular name renowned for ingenuity; the man has not any advantage in being the first inventor, because nobody inquires about it; they say we must get one of these patent boilers; there are 35 new boilers patented, which shall we get? Then every one of the patentees describes how much better his boiler is than any body else's, and it is very difficult for the purchaser to describe which is the best, but the first patent has no better chance than the last. In the meantime the competition is exactly the same, and as if no one of the 35 patentees had a monopoly, every body comes at last to what is the natural result of competition, who can do the thing cheapest. There is just the same competition exactly, with the additional drawback that here each one is liable to be attacked at law by the others.

Has it ever occurred to you to consider whether this great evil of vexatious litigation could be diminished at all, by obliging the patentee to obtain some sanction before he brought his action; for instance, requiring that an action should not be brought without the consent of the Attorney-general, advised by certain parties?

I have heard of a great many plans to avoid law expenses; I have myself been engaged in, and had the management of, very large undertakings, where the object has been in every possible way, and by any practicable arrangement, to avoid legal expenses. I have always found lawyers enter most readily into any such arrangements, because they are quite satisfied that your attempts to avoid law generally end in more litigation than you would have in the natural course of things.

Supposing, for instance, there was some enactment to this effect, that a patentee, having obtained a monopoly, should be subject to this rule different from all other persons, that he should not commence his action unless he had permission to do so?

I presume then he would have to begin by convincing the Attorney-general that he had a just right to commence his action; I presume that the parties opposed to him would also have a *locus standi* to show that he had no right to commence his action. That very argument, to begin with, would be in fact a lawsuit, and when it was decided, if the Attorney-general gave permission for a patentee to try his action, he would be where he was before; but, if not, he would simply have lost that action which he would have otherwise lost in a different way.

Supposing the Attorney-general were permitted to call to his aid any parties whom he pleased, and at once to make his decision, and say to the patentee, "You shall not proceed further," the patentee having obtained a monopoly, would have obtained it, knowing that he was subject to that peculiar rule; if that plan were assented to, would it meet the difficulty to any extent?

I am afraid I cannot perceive that it would do so, for the reasons which I ventured to give before. The very fact of arguing before the Attorney-general whether you have a right

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to bring your action or not, is in itself a lawsuit; it appears to me that it is, in itself, litigation.

Does not the plan suggested in the last question really amount to this, the substitution of the Attorney-general for the Judge, and the substitution of the proposed council for the jury; is not it, in reality, only the suggestion of another mode of trying a litigated case?

That is what struck me when his Lordship asked me the question.

Does the law inculcate that patents should be granted for useful inventions?

I believe that is stated in the Act to be the only condition upon which a patent shall be granted; I believe, however, that a very small proportion of the patents which are granted for inventions are granted for useful inventions; in point of fact, if patents were granted for every thing at a very cheap rate, I do not believe there would be a single article in the country which was manufactured under anything but a patent; it appears to me, that either one of two things must happen; either the law would be inoperative, and people would pay the same disregard to patents which they do pay in the United States and on the Continent generally; or the confusion and the litigation would be so great, that trade would be impeded to such an extent, that it would be absolutely necessary to abolish the system.

The check upon the multiplication of patents is, now, the expense incurred by an inventor seeking for a patent; but if there were some other check, not consisting wholly of a money payment, though partly so, but also a previous examination by a Board, composed of some high legal functionaries, assisted by scientific persons of great eminence, who would not allow any patent to be granted for inventions which were not perfectly novel, would not that prevent the very great and injurious multiplication of patents to which you have just alluded?

I have no doubt that in proportion to the higher price which you impose, and the greater difficulties you throw in the way of obtaining a patent, would the number of patents taken out be diminished; I have thought a great deal about it, but I cannot imagine any way in which you can distinguish good inventions from bad ones; I have heard of so many inventions which have been looked on as perfectly wild and ridiculous, which have turned out afterwards to be most advantageous to the public, and most useful; and on the contrary, I have known many which have looked as if they were going to do very great wonders, and be of the greatest possible public service, which have turned out to be empty bubbles; so that I really think it would be almost impossible for any tribunal to distinguish a good invention from a bad one.

Admitting that you are right, and that it would be impossible for any tribunal to decide what were good and what were bad inventions, would not the mere fact of having a tribunal competent to decide upon the question, whether there was any novelty in the invention or not, go very far to diminish the injurious multiplication of patents?

I think there is great difficulty in ascertaining what is a competent tribunal. I have found in my experience that any improvement or alteration in any particular manufacture has, generally speaking, been treated with contempt by the manufacturer himself. I have frequently found that the party who has opposed any improvement, and who has thought least of the improvement which has been suggested, has been the party who is engaged in the particular manufacture to which it relates, and therefore I cannot conceive where you could obtain a competent tribunal. The first thing an inventor does is to take the invention to a party who is engaged in the trade to which his invention refers. In nine cases out of ten he sends him away; he then shows to somebody who does not understand anything at all of the trade; that has happened to myself. The parties who take it up are not in the trade, and they bring out the invention in opposition to the trade themselves. They have great difficulties to contend with, and it must be a very good invention if it succeed. I think experience will show that in most cases where any very large and extensive improvement in manufactures has taken place, it has not been through people engaged in the trade, but people totally distinct from the trade itself.

Would not that show that there is a certain advantage in the obtaining of patents; that the trade itself being so opposed to the introduction of any very novel invention into their processes, it requires the stimulus given by patents to inventors to force improvements as it were upon manufacturers?

No, I think not; I think the improvement generally comes in a wrong and unnatural manner. The natural way in which an improvement should be made should be by gradually going from one step to another; but under the present system a workman never attempts to improve upon anything which his master is using, but he attempts to make something quite different from what his master has; he then tells him, "Now, I will not show you this; but here is an improvement by which I can do so and so; if you will buy it of me, you shall have it for so much; if you will not buy it of me, I shall take it to your competitor, and see if he will not buy it of me." Therefore, by means of the patent system you create two distinct interests, the interest of the workman in opposition to the interest of the master. The natural course would be, and what I think is the fair and proper relation between master and servant, that when the workman sees any improvement in any part of the machinery, he should tell his master of it; and if it is adopted, I think in 99 cases out of 100, certainly in every case in my experience a reward has been given to him, in proportion to the utility of his invention or his improvement; if his employer will not do that, he refuses at his own peril, for it soon gets known that this workman has improved this or

invented the other, and therefore he is put at his real value. Every manufacturer is anxious to get him into his employ, and he would command exactly what is the real and proper value of his ingenuity in the labour market. As the case now stands, instead of working in that fair and more agreeable manner both to the master and to the workman, the system is, that the workman is always setting his wits against his master to supersede something that his master has got. Everything is now done by machinery, and unfortunately nearly everything under patent, and there is no patentee and very few manufacturers who do not hate the very sight of anybody who can improve or invent; they discharge a workman sooner for inventing an improvement than for anything else; they do not want any improvement made; they want to work by the machinery they have, and they do not want any improvements, because they know they will have to pay for those improvements a monopoly price, or if they do not, they will be taken from them, and sold to some one else to come into competition with them.

In the hope of obtaining a patent, do workmen ever employ their time unprofitably in invention?

It is incredible the number of inventions which are made which have been invented before. In the case of the Electric Telegraph Company, the company hold a very large number of patents, because they make it a rule, if a man offers reasonable terms, to buy any invention, however bad it may be, sooner than litigate it. They find it is much cheaper to pay black mail than to litigate an invention which may be set up against them. It has happened to us, not once, but I think 20 times, that a man has brought to us an instrument of great ingenuity for sale; we have taken him to a cupboard, and brought out some dusty old models, and said, "That is your invention, and there is wheel for wheel, generally." Nevertheless he has, in fact, invented it. The ideas of several men are set in motion by exactly the same circumstances. A man sees around him systems of various kinds, and he makes a combination of those systems, and men who are in the habit of putting things together very often have the same ideas at the same time. A man has positively invented something; he has spent a great deal of time and labour, and neglected his proper and regular business to do it, and then he finds the thing has been invented before; but the misfortune is, though it is human nature that he will not admit his error, he will not admit that he has wasted his time, and that the thing has been done before. He cannot make up his mind, after all the trouble he has taken, to throw it all aside; he knows he did really invent it, and he goes away and still hangs upon this invention. He takes it to somebody else who has never seen it, or knows nothing about it, or anything that has been done before. He buys it of him; he thinks it a very clever thing, and does not know that there is exactly the same thing in the possession of some one else. He buys it, then, and it is established against the original patent; then begins the litigation. Or perhaps it may be more wise and philosophical for the original inventor to purchase it back when he finds it in the hands of people who are likely to litigate it with him.

Would not that ignorance, of what has been done before, be very much obviated by having published specifications and indices of all previous patents which have been obtained?

It is a very difficult thing indeed to judge from a specification exactly what an invention is. I have seen an apparatus, and I have seen the specification of it, and I could not recognize one in the other very frequently.

Does it ever happen that a specification is drawn up purposely rather to conceal the mode in which the invention is carried out?

There is no doubt about it; that is the rule instead of the exception, I believe.

The objection which you stated to the suggestion of forming some tribunal to which the invention should be submitted before the patent was granted, was that it would be impossible to discriminate between bad and good inventions; suppose, practically, scientific bodies, by their councils, are daily doing it, and doing it in a way which gives great satisfaction, does not that afford presumptive evidence that the same thing might be done with respect to inventions?

I do not know whether the Committee examined Mr. Carpmael upon that point; I have had some conversation with him upon the subject, and he related some very curious instances to me, in which men most competent to know have utterly repudiated the possibility of some of the best inventions which have been made. I think he related an instance with respect to gas, and with respect to electrotyping. I thought it very probable he might have given those statements in evidence.

A great deal must depend upon the parties to whom the question is submitted; in the case of the Royal Society, which takes the range of all science, worthless papers are sent to the archives, where they remain, and never see the light again unless something should occur which shows that a mistake has been committed, and then the paper is taken out of the archives; suppose, with respect to that society, who are doing the work of separating the bad from the good, ranging over the whole extent of science, that for a number of years no instance occurred of such a paper being taken out of its archives, does not that afford presumptive evidence that if proper measures were taken the thing could be done?

It may be possible that there are those who could do it. I can only give my opinion with respect to the question, that I think it is very difficult indeed for anybody to judge till the thing is practically tested, whether an invention is a good or a bad one. I repeat, that I

I have

I have known many inventions which have had every possible appearance of being invaluable, and which have turned out to be utterly valueless. I have known others which seemed to be the merest speculations in the world, which have turned out to be of the greatest possible interest and public benefit. I will not, at the same time, venture to assert that the Royal Society, or gentlemen of great scientific attainments, might not be able to discriminate in such matters. I think those gentlemen themselves are far more entitled to reward than many of these inventors; those great scientific men are generally the originators of all great inventions which are made. They undergo a great deal of labour, and are at great expense of time, and they discover certain scientific principles, which principles they disseminate without fee or reward. They are published in Mechanics' Magazines, and all the papers which mechanics read. Those men adapt them, and then come for a patent to obtain the reward.

Take the following case. Supposing a patent assumes something which is palpably false; supposing it is impossible, without a violation of the law of nature, to carry it out; would not that be a clear case for refusing a patent?

An invention was brought, for purchase, to the Electric Telegraph Company; there was no model brought with it, but simply a description of the apparatus; I have not scientific knowledge enough to enable me to describe it; but it was on a principle which was received by electricians as impossible, and the men of science connected with the company declared it to be impossible. Nevertheless, the model was brought, and it was found that the thing was practicable against all rule by which hitherto we had been guided in the matter.

Did not Dr. Lardner demonstrate, almost mathematically, that it was impossible for a steamer to cross the Atlantic?

So I have heard.

Is not there a wide difference between determining upon the merits of abstract scientific principles and the merit of inventions applicable to the varied practical purposes of life?

I think a very considerable difference.

Do you think the analogy between the one and the other is sufficiently strong to justify legislation upon the latter subject, founded upon experience derived from the former subject?

Certainly not; I cannot think that it is justifiable at all.

Do you think, considering the great variety of character and of feeling which pervades the whole body of inventors in this country, their confidence could be obtained to the decision of any scientific body?

I think that where, in one case, you would get an advantage from the appointment of a scientific body, in a hundred others you would suffer a great disadvantage from the want of a practical application of scientific knowledge.

If the Committee has understood your evidence correctly, you look upon patent rights as a species of bounty acting as a strong artificial encouragement for the production of other inventions upon the same subject?

Of changes in inventions.

A patent right upon any given subject acts as a bounty to encourage, artificially, a multiplicity of inventions having reference to the same subject?

Quite so.

You think that inventions so springing out of the original patent are in many cases merely a re-discovery of a previously existing discovery, and, therefore, entirely useless to the public, and a waste of time to the inventor?

Quite so.

That in other cases the inventions are really and substantially the same, but varied and modified in shape and form, for the purpose of evading the letter of the existing patent?

Quite so.

And, further, that many of those inventions are brought forward for the sole purpose of facilitating litigation against the original patentee?

In very many cases.

The result of all this is a great waste of time and of money on the part of inventors, subjecting the original and real and meritorious patentee to great inconvenience, to great uncertainty and much litigation, and to heavy expense?

So I have stated.

And, further, that the result of that is, that in a great majority of cases the second and inferior patents are bought up by the original patentee, not on account of their merits, but solely on account of their artificial power of subjecting him to litigation?

Exactly so.

That is the result both of your personal experience and of your general knowledge of the way in which the patent system works?

Your Lordship has very concisely stated my meaning.

(77.—APP.)

3 D 4

Do

Do you think the stimulus of the patent system necessary for the purpose of producing inventions useful to the community?

I must say I do not think so at all. If one looks back to the times when the most important inventions were produced, they were all made without any patent at all, so far as we can discover; for instance, arithmetic, writing, and all the first great inventions to which we are all so habituated, that we scarce think they have been invented any more than the flowers or the trees; they were mighty inventions in their time. All those were produced without any stimulus of patents. Paper was invented in the year 1200; that was before there was such a thing as a patent law for inventions. Oil painting in the year 1297; there was no patent law then. Glass was invented in 1310; there was no statute of privileges at that time. Gunpowder was invented in 1450; printing was invented in 1430; and I could mention a great many more, but all those inventions, or very many of them, were made by men without artificial stimulus, often at the peril of their lives, when their reward was not a monopoly, but perhaps the stake or the gibbet. It appears to me that it is the natural bias of man's mind to go on improving; improvements do not come all of a sudden; an invention does not come on a sudden; it is born of the various elements by which a man is surrounded. If a man lives in a factory, his mind is naturally turned to the improvement of every process he sees, and no manufacturer would fail to improve that process; no mechanic would fail to make suggestions to his master for the improvement of that process, even supposing there were no patents at all. All the great inventions now are made without patents. I have alluded to the scientific discoveries which have been made without any stimulus of the kind; I may say again that the great mechanical discoveries are made without patents. There is no patent for Stephenson's tube across the Menai Straits; but there is a patent for Nicholl's paletot; this last is the sort of thing which is encouraged. You encourage the invention of paletots and that sort of thing, but you do not encourage the great mechanical improvements which are made every day. Mr. Stephenson has had for all his great engineering achievements nothing but the regular remuneration of his profession, and the honour which he has obtained from his practical improvements and scientific knowledge in engineering. But I do not believe that if you were to promise to Mr. Stephenson or Mr. Brunel a monopoly in engineering inventions, you would stimulate them one bit more than they are now stimulated by the honourable rivalry which they have one with another. You stimulate the making of bedsteads, and beer, and belts, and bands, and blocks, and bedding, mentioned in the Index to Patents, and all that kind of thing, but you will seldom find a patent taken out for any wonderful and extraordinary public improvement; it is simply those trivial things which patents are obtained for. If your Lordships will take the trouble of looking over Carpmael's Index, you will find the absurd things which patents do encourage; and it is something humiliating to know that people think it worth their while to take out patents for them at all, and that there should be a law to enable them to do it.

Do not you think that any tribunal would set those aside immediately? If an application for a frivolous patent came before any tribunal, would not they at once say, it shall not be granted?

I cannot see exactly where you would draw the distinction. It would be a very difficult thing to draw a distinction on the subject. If a man's trade is making bricks, and he invents a new plan for making bricks, I do not see why you should refuse him a monopoly any more than to a man who invents a new plan for making locomotives, or any more important manufacture. It would be very difficult indeed to draw the line. It is the principle against which I contend. If once you admit the principle that a man is to enjoy a monopoly against the public as a reward for his ingenuity, then I think you cannot separate one species of ingenuity from another.

The only ground upon which a distinction could be drawn would be that of novelty and utility; but you think that you could not define or distinguish between different degrees of utility?

I think it would be impossible.

Utility applied to a purpose of very inferior importance must entitle a party to a patent, just as much as if applied to a more important matter?

Certainly,

The question of novelty is one which, of course, enters into the consideration of every paper presented to a scientific body, and one upon which daily decisions are taken?

Yes.

So far as a decision upon the question of novelty is concerned, is not there a fair presumption that it might be possible to get over the difficulty?

The Attorney-general is presumed now to decide in respect to the novelty of an invention; but it is very seldom that a patent is refused in the first instance. As respects the employment of a scientific body in such cases, you may in some instances, no doubt, derive a very great advantage from their assistance; in anything relating to scientific matters, I have no doubt it would be of very great service. At the same time, I think it would be a very great hindrance and impediment when they came to enter into those small matters which I have mentioned to your Lordships; those inventions as to brewing and brick-making, and so on.

The question of novelty is practically dealt with in this way by scientific bodies: a paper about

about which there is any difficulty is always referred to two parties, who are known to be thoroughly acquainted with the subject. They cannot be thoroughly acquainted with it unless they know every thing upon that subject which has been done by others. They dispose of the question of novelty. If it is not a novelty, they at once perceive that it is not so; or where a paper contains an obvious and palpable error, it is at once disposed of. Where would the difficulty be, in case of patents, in subjecting them to the same kind of scrutiny?

If you admit patents at all, I have no doubt that there are many tribunals far more competent to judge of the merits of a patent than those before whom they are now argued. I have not been able to make up my mind what description of tribunal would be an efficient one, inasmuch as I have adopted the other principle altogether, of considering that patents are an impediment to trade generally, and that they are not the best means of encouraging invention, or remunerating inventors; I am not competent to give an opinion exactly upon what would be the proper tribunal to discuss such questions.

Do you think that the improvements which every day are being introduced into all mechanical and scientific operations in the world are far too varied, far too minute, and far too complicated, to be safely submitted to the arbitration and decision of any previously constituted tribunal?

I confess, if I am to give an opinion upon the subject, I think the best tribunal you could have for judging upon the subject of patents would be a body of gentlemen who are totally unconnected in any way with the matters on which they are to judge. The subjects upon which patents are asked for are so varied and so complicated, that where you obtained a tribunal competent to judge of one question, that very competency would render it incompetent to judge of another.

Have you brought many of the patented improvements, which in the case of the Electric Telegraph Company you say you have bought, into use?

We have adopted a good many, in combination with others. The patents which we have bought are in most cases valueless in themselves, but in combination with others which we have, they may be made useful. We have found, after every possible experiment, that the original system of the needles is by far the best for all practical purposes; it is clear, it is our interest to have the best we can find. There is not one invention which is not brought to the company before it is started against the company, and we have expended nearly 200,000*l.* in buying patents and litigating them; but we find, after all, that the original patent is by far the best, and the most suitable for practical purposes.

You gave a large sum for that patent, did not you?

Yes, 140,000*l.*

As far as the public are concerned, the whole of the money which you have spent in buying up those patents, and in trying them, has been completely thrown away?

Entirely so; I should have considered the thing more valuable if I had originally started it, having no patent at all, than it is with the enormous number of patents with which we have been hedged round in every possible way.

Would not some of those patents which you have been compelled to buy, though useless in themselves, have operated as great obstructions to you if you had not possessed yourselves of them?

No doubt they would; we generally look rather more to the parties in whose hands they are than to the patents themselves. If we find a very strong party has a very bad patent, and they have persuaded some railway company that it, on the contrary, is a very good invention, and they are going to set it up in preference to setting up our telegraph, we buy the patent as a means of getting rid of the opposition, though we do not use it, because we know it is perfectly useless; if, on the contrary, it is not likely to injure us, we leave it.

Among those patents which you say are useless in themselves and alone, have not you found some which you have applied to your own advantage?

Yes; there is one patent of Mr. Bains, for which we gave 8,000*l.* or 9,000*l.*; although it did not quite come up to the expectation we formed of it, it has proved useful in combination with other patents.

That patent standing alone, and not being useful, was, till you acquired it, an obstruction to improvement?

The Witness withdraws.

APPENDIX B.

LETTER from the RECORDER to the MAYOR of BIRMINGHAM.

My dear Sir,

44, Chancery-lane, London, 6 November 1850.

I HAVE read your letter, and the resolutions on which it is founded, with great interest. I would gladly assist in the excellent object which the Committee has in view, if the accidents of life had endowed me with power. As it is, I can only throw out a few hints for their consideration, which, if adopted, may serve, in some degree, as a guide to their proceedings.

It is quite clear that the whole system of our patent laws requires revision. It had its origin in times very different from our own, when the principles upon which it ought to be framed were little understood and less regarded. That such revision will be made I cannot doubt; but the work, if it were already in progress, could hardly be expected to be brought to a conclusion before the Committee itself had ceased to exist, and consequently, for all purposes relating to the Exhibition of next year, I should consider it hopeless to expect aid from such a source. I should therefore respectfully advise the Committee to concentrate their efforts against such portion of the patent law as may be expected injuriously to interfere with the objects of that great enterprise.

We shall all agree that, whatever gratification we may receive in the forthcoming Exhibition from the beautiful forms, the brilliant colours, or the exquisite workmanship of the countless products of human labour and ingenuity which will meet our eyes, such pleasure will be secondary in the reflective mind to our delight in contemplating the efforts of genius, as developed in the new and striking inventions which will, doubtless, enrich and adorn that high festival of nations.

Here, however, the law as it now stands offers to the most valuable class of contributors an impediment of no common magnitude. Every new invention which they may give us the privilege of beholding will, by that same act of benefaction, be surrendered to the public, unless it has been previously secured by patent. I am now speaking in a practical sense, and I pass over certain legal refinements which might be adduced as impugning in some degree the position which I have ventured to lay down. I believe I shall be found sufficiently accurate for the present purpose.

It is also possible that the late statutes for the protection of copyright in designs may in certain cases afford some imperfect defence, but I need not say to the manufacturers of Birmingham that inventions, in the usual acceptation of the term, are beyond the scope of these provisions; and you are also aware that, as in the case of patents, the conditions imposed by these Acts must have been complied with before the articles can be safely displayed.

The claims of justice, then, seem to demand that some alteration should be made whereby the country may be relieved from the unenviable position of receiving a benefit and inflicting an injury on the benefactor at the same moment, and as part of the same transaction. The feelings, I have reason to believe, which the present state of the law in this respect is calculated to excite are far from dormant in the breasts of inventors; and if a change cannot be made, the highest department of our Exhibition is likely to suffer serious injury. To remedy this legal defect, I would propose that an inventor, by placing his invention in the Exhibition, shall be in the same state as regards a patent right as if he had previously sued out his patent; subject, however, to the condition that the patent shall be sued out within some reasonable and specified time, or not at all.

The obvious advantages which may be fairly expected to flow from such an arrangement as that proposed will show, I think, the propriety of so framing the Act by which they would be conferred as that the privilege thus created may not be confined to the year 1851, but made permanent, because I think it can readily be proved that although the suggestion for some protection (with whomsoever it had its origin) was prompted by the requirements of that year, yet it would go to supply a want which has been long and grievously felt by inventors.

I scarcely need remind a gentleman so conversant with the commercial history of patents as you must be, that an inventor, instead of arriving in port when he has completed his invention, has to encounter most of the difficulties and all the perils of the voyage—difficulties and perils which he has the more to dread, inasmuch as it rarely happens that he is well fitted, either by nature, education or circumstances, to cope with them. The structure of his mind, the training, the habits of life, and very often the humble position and scanty means of the inventor, place him under great disadvantages in the struggle which he must undergo before he can bring the most valuable invention into such public use as shall make it yield him a profit. For this contest a new set of qualifications must be brought into action. The party who bears the expense of a patent, who works it, and protects it against invaders, should be in possession of considerable capital; he should be a man of enterprise and wide connexions;

connexions; he should be endowed with commercial courage, steeled against a weary course of disappointments and pecuniary losses, and ready to follow his adversaries from court to court. In short, he should be gifted with unvarying resolution, and an eye steadily fixed on ultimate results. He must be content to be ridiculed as a wild speculator until the patent becomes a source of profit, and when that event arrives he must forthwith expect to be robbed by pirates, consisting not unfrequently of the very individuals who had made him their butt. Nor must he forget that the law itself is an ally, sometimes dubious, and always costly—doubt and expense being legal incidents, capable perhaps of diminution, but which I fear it is beyond the reach of human wisdom ever to abolish.

As, then, to invent demands capabilities distinct from those required to carry an invention forward to commercial success (and not a little repugnant to them), it should seem very much to be desired that provision should be made for enabling these tasks to be readily separated, so as to be undertaken by different hands. It is obvious that the present state of the law raises great obstacles to this division of labour between the inventor and the capitalist.

To avoid the forfeiture of his property, the former must be very chary of disclosing his invention, and, consequently, his opportunities of negotiating with the capitalist are few and casual; while, on the part of the latter, his means of forming a just estimate of the value of any invention which he may wish to purchase are very much restricted by the natural jealousy entertained by inventors of those engaged in similar pursuits with themselves. These persons, however, are exactly the advisers with whom, if the choice lay with a capitalist, he would wisely and naturally take counsel.

It must then, I apprehend, be tolerably clear that some institution is permanently required of the nature of an inventors' mart, in which, for a limited period, inventions may be deposited with a similar privilege to that proposed to be conceded to the exhibitors of next year. I am very sure that such an institution would be hailed as a great boon by our fellow-townsmen, among whom, as you well know, are to be found many individuals whose inventive talent is not combined either with capital or the other requisites for commercial success. And it will be an additional recommendation to those whom I am addressing, when they reflect that such an institution would of itself, and without any other teachers than the various objects which it must contain, form a school for inciting and training the power of invention—an establishment of incalculable service to all on whom it has pleased God to bestow this noble gift.

I have now, my dear Sir, written down what has occurred to me in furtherance of the Committee's desire.

I regret that my contribution should be limited to so very slight a service as that which I have now performed—a service, too, in which I may probably have been anticipated, because, when the public attention is bent on any subject, it is constantly found that the same ideas arise in more minds than one. But neither yourself nor the Committee will mistake my inability to do more for want of zeal in your behalf.

If these hints should furnish materials for a statement of the views entertained by the Committee to the Board of Commissioners, they may perhaps be of more avail than I have expected. It is, I am persuaded, quite impossible for you, who have watched the proceedings of that Board, to doubt its willingness to make an exertion calculated to augment the success of its great undertaking, or to do justice to those on whom that success must depend.

I have, &c.

(signed) M. D. HILL.

William Lucy, Esq., Mayor of Birmingham.

APPENDIX C.

SOCIETY OF ARTS.

EXTRACTS from the First Report on the Rights of Inventors.

32. Is it the policy of a civilized state to grant any rights to inventors? The question may startle many, seeing that the practice of all civilized nations recognises them, and that we have done so, even through the awkward medium of patent laws, for several centuries. But still it is a question mooted by those whose opinions demand respectful attention. It is contended by those who are adverse to the further multiplication of *any* rights of property, that although they admit that inventors labour under great and unjust difficulties in obtaining rights, it is inexpedient to multiply such rights by simplifying the attainment of them. To enter on the discussion of the question thus put, would involve a discussion into the policy of having individual rights in any property at all, in land, houses, money, &c., which is obviously beside the present purpose. Against objections of such a class the Committee would simply say, that so long as the State recognises the existence of rights in any property, all the arguments which fortify such a recognition apply, in equal or greater force, to the rights of property in invention.

33. There is another class of objectors who confound such rights with monopolies, *i. e.* as rights by which one party obtains an advantage to the prejudice of the public. They say, the discoverer of any new process by which the world is benefited is sufficiently rewarded by the custom of the world, without his possessing any special rights. They put the case thus:—One baker makes bread from the ordinary materials, but compounding them by a method of superior ingenuity, makes such excellent bread that the world voluntarily gives a preference to him, and this is his sufficient reward. Another baker, exercising no such ingenuity, makes inferior bread, and the world neglects him. It is contended that discoverers in science and labourers in inventive skill should be in the same position as ingenious bakers, &c. But these objectors overlook some material differences which exist in the two cases. Let it be assumed that a baker has an invention, which is such an improvement in baking that he not only produces equally good bread, but has invented a mode which enables him to make *three* loaves where other bakers made only *two*. Now the public desire to obtain from him, not only his good bread, but likewise his *mode*, by which they are enabled to get it cheaper. The purchase of the bread may reward him, but the public want the certainty that they can always have the bread as cheap, not that they shall return to dear bread when the inventor dies. On the one side, it is the inventor's interest to keep his process to himself, and not, by disclosing it, share his reward with others; on the other side, the public want to know the process. The problem, therefore, to be solved is to make these adverse interests one: and the solution is obtained by the public consenting to assure to the inventor a certain limited sole use of his invention in consideration of his disclosing it. The reason why this right should be only temporary, and not be perpetual, will be noticed hereafter. Such a right is not to be viewed, therefore, as a "monopoly" by which the public is a loser, but one by which the public is a gainer, and it therefore cannot be classed with monopolies in the ordinary acceptation of the term, as a privilege granted to one party at the expense of another. (See *ante*, sec. 7.)

34. These same arguments, moreover, appear to afford a sufficient answer to the doubts of those who hesitate to recognise the rights of inventors, because they question if such recognition promotes invention itself. Some say, "Confer no peculiar rights on inventors in return for their labour and skill, lest you impede invention itself:" which is to say, "Invention will be best promoted by permitting every one to pirate the ideas of his neighbour, and 'convey' his skill to himself." It has already been shown that if you grant no rights to inventors, you place them and the public in antagonism to one another; while another reason for recognising such rights is, instead of obtaining the knowledge of discoveries, recording and funding them as stock to be susceptible of future improvements, you are compelling the public to be going over the same ground again and again, and thus wasting its labour—a certain positive loss. An invention is concealed and lost, because you compel the inventor to conceal it through fear of robbery. The same laborious process has been performed again and again by successive inventors. Is this the way to promote invention? To give one inventor a right in return for his labour and skill is not to take anything away from another inventor. To found a colony and give rights of property in land, where there existed none before, has not hitherto had the tendency of discouraging colonization. The whole history of civilization proves, that in proportion as you establish rights,

rights, so do they become respected. The very recognition of the right is the public token of its respect for it, and of its estimate of its value. It is a contradiction in terms to say, that by making a thing valuable you make it valueless, and discourage the cultivation of it.

35. But the reasons for recognising the rights of inventors rest on much higher grounds than the encouragement of invention itself. They are precisely those which induce men to adopt civilised rather than savage life. Invention is not a chance finding, but the result of labour applied in a particular direction, responding to the previously expressed wants of society. Even if it were a chance finding, and scientific discoveries were made in the same way as the savage alights upon a wild beast and takes its skin, still the *first* finding among the most barbarous people is held to constitute a right. To assert that a man is not entitled to reap any advantage from his labour and skill, developed in every way not inconsistent with the good of the commonwealth, would be to advocate an anarchy that would sap the foundation of the rights of all property whatever. To justify the exclusion of an inventor from reaping the reward of his labour, it would be necessary to prove not only that inventive labour is inferior and less worthy than other mental and bodily labour, but that the exercise of it is hurtful to the commonwealth. It would be an ungrateful return for the answer made to the expression of a public want. The public travelled by horses 10, and was craving to travel 12 miles in the hour, and sent its messages by a *Semaphore* when the weather permitted. George Stephenson showed them how to travel 20 miles in the hour, and that knowledge of his led the way to going 60. The *Semaphore* was then felt to be a cumbrous, uncertain process for sending messages; and the public being able to travel nearly as fast as messages were sent by it, immediately wanted a quicker mode of sending messages,—one which bore the same relations to railways as the *Semaphore* did to stage-coaches. An inventor ponders on this want. He patiently investigates the laws of science to enable him to answer it. If, instead of months of mental labour, he had broken stones on the road, his stone-breaking labour would have been rewarded by a shilling a day, and the law would assure him the possession of this property or “monopoly;” and because his labour is highly intellectual, hardly to be hired in the labour-market,—is it less worthy of reward than the bodily labour of the lower class? On the contrary, every one must feel that inventive labour has its rights, which are not only entitled to equal recognition, but, being intellectual, are entitled, if possible, to a higher kind of recognition than other kinds of human labour. It may be called, for want of a more comprehensive phrase, a *natural* right, the exercise of which should be left perfectly free, and recognised as peculiarly sacred. To have, therefore, to *beg* for the right of enjoying it is degrading, and is almost tantamount to an admission that you should *beg* to be allowed to live. It is altogether at variance with all the other rights which a member of the British commonwealth possesses at the present time.

36. Inventive labour is a right which no power in the State ought to have any option in the recognition of. If the exercise of the right be useless and frivolous, the public are sure to pass it by with contempt; if it be contrary to established law, then the proprietor is checked by the law itself. As a general principle, it must be conceded that inventors are entitled as fully to a positive recognition of their labours as *property*, as any other description of working people in the commonwealth. It would seem to be unnecessary to argue this point even at all, whilst the State recognises right of property in literature of all kinds,—books, articles in newspapers, and reviews; in songs; even in lecturing; in any unpublished manuscripts; in engravings, although not published; in ornamental designs of the simplest character; in mere arrangements of geometric forms; and, lastly, in the invention of the “form or configuration” of any article of utility;—in the shape of a steel pen, or of a tooth-pick. But the producer of a mechanical action or chemical discovery has no right of property in it at all if the Attorney-general should think fit to refuse it, or he should be unable to pay the toll of 100*l.* for a patent!

37. The rights of property in literary or artistic labour, or of mechanical skill in respect of “form or configuration,” are not determined in any respect by their merits. Even the present system of patents virtually does not recognise the intrinsic value of an invention to be any ground for granting them. The spirit of our institutions is, to leave the public the utmost latitude of judging for itself upon all questions of merit; and it may, therefore, be concluded that there are no sufficient reasons for making the question of merits any ground to refuse acknowledgment of the rights of invention. It might, perhaps, indeed be expected that, after paying such heavy fees, the State should confer upon inventions some guarantee of worth or validity; that there should be some substantial return made for the outlay of money: but such is not the fact. In no case whatever is the nature of the invention even fully known until six months after the right is granted; and, in the majority of cases, nothing whatever is known but the title, which is as vague as possible.* So that the present system,

* But it is said that the great cost and the trouble of taking out patents, and the necessity to employ an agent, are beneficial so far, because they insure an examination into merits, and prevent grants of idle applications. In the case of a capitalist, who has a whim to gratify, and goes to the patent agent with 300*l.* in hand, there is clearly no check. It is the direct interest of the agent to take the fees and get the patent through. In the case of a poor inventor, doubtless, the agent, if he has to find a capitalist, investigates so far as he may be able: but he is under no public responsibility whatever, and, owing to the imperfection of indexes and means of reference, the preliminary inquiry is not worth much. No one is really able to say what has been patented or not. It is quite notorious that a considerable number of patents are valueless.

system, in reality, although it has the semblance of doing so, does not enter upon the question of merits at all. And, whilst the preliminary official inquiry which takes place in America is declared to be unsatisfactory, the practice to inquire into merits does not obtain in France, Spain, or other countries, the jurisprudence of which respecting invention is more advanced than in our country.

38. In fact, upon the intrinsic merits of an invention the public at large are the best and only judges. But it is prophesied, that if inventive rights were easily recognised, they would generate endless litigation,* and there are advocates for the establishment of a tribunal to pronounce judgment on the legal validity of a claim before it should be recognised. There are many strong objections to such a course. It is clear that any tribunal would entail cost, and, probably, very heavy cost. Its mere existence would encourage disputes, because there are always parties who live by such disputes, and whose interest would be to keep the tribunal in a plentiful supply of work;—whose interest it would be, in fact, to dispute every claim for rights. Such a tribunal to investigate all claims might, perhaps, usefully negative a few,† but its cost and its practical working would be a tax upon *all*,—upon those which were sound and impregnable and those which were invalid. So far as it was a general tax, it would discourage invention. To be of any use, the decision of this state tribunal—this Pope over inventions—must be final and absolute. Is its infallibility to be trusted? And is the whole progress of invention to be regulated by it? It has yet to be proved that affixing a legal respect on small rights begets a moral disrespect for them. And if litigation should increase, as is predicted, to an insupportable extent, we may assume that a remedy will be found. Let us first have proof of the evil before we legislate in the dark to remedy it, for it may never come to pass. It will be time enough to investigate the legal validity of the claim when it is questioned. We shall not be destitute of the ordinary legal tribunals, and, under any circumstances, the world cannot suffer the persecutions of lawyers and the importunities of crazy inventors more than 12 months without redress. If all the dismal prophecies are fulfilled, and the public evils are proved to be intolerable, the constitution of a legal tribunal will then be far easier than it can now be, when the necessity for such a special tribunal at all is disputed by many, and when scarcely any two persons agree upon its precise nature and functions. It should not be created on a mere hypothesis of evil.

39. At the same time the Committee are unanimously of opinion, that for the satisfactory settlement of disputes arising out of inventions protected by law, which demands specific scientific acquirements in the tribunal, the present judicial arrangements are insufficient, productive of enormous and unnecessary expense, and a source of anxiety and needless delay to the unfortunate possessors of the right. The great difficulty, expense and trouble of obtaining redress in case of infringement, is a premium inducing dishonest persons to run the risk of infringing on the rights of patentees. It leads to vexatious law-suits, and to loss of money from the unfair competition of the infringer before he can be stopped. It is impossible to state the average expense of trials at law involving a patent right; but there is no doubt that, were it practicable to show the costs of the pleadings, the fees, and the witnesses under the present system, the amount would be absolutely appalling to the proprietor of patents. Mr. Prosser, a member of the Committee, states that the cost of defending Mr. Muntz's Sheathing Patent exceeded 10,000 *l.*; and Mr. Newall, another member of the Committee, states that he is now engaged in a law-suit to defend his rights, and has already expended more than 2,000 *l.*

40. It appears to the Committee a fallacy to deny rights lest the process established to redress wrongs should be inconvenient. It is the same sort of argument that used to be urged against cheap law. The statesman-like remarks of Lord Langdale, the present Master of the Rolls, on the policy of "checking" litigation, may here be quoted:‡

"I consider that to check litigation by means of expense is pernicious to the public. Litigation may be most usefully prevented by cutting off its sources; but if the causes or sources of litigation are existing, the only mode of preserving the peace of society is to allow litigation to take place, and to make it easy. It is a great object of good legislation to cut off the causes or sources of litigation; that I conceive to be the object of government. But when the sources of litigation unhappily exist, instead of allowing them to rankle and fester in the minds of parties, the best and most prudent course is to let them go before an impartial judge, who may decide the matters in difference between them: and this is litigation."

41. In

* It is apprehended by some, that the great increase in the number of patents which would be the consequence of throwing off all the fees, would occasion so much litigation as to become a great public inconvenience; my view is, that this evil, if it should be found to exist in the early stage of the change, would soon correct itself, because every trial of a patent cause would tend to enlighten the public mind, and enable persons to decide many critical points without an appeal to a court of law; it is very probable, that more litigation would be generated by the increase of a thousand ships employed in commerce, than the increase of a thousand patents; but who would imagine that an addition of a thousand ships employed in the commerce of the country would be a public inconvenience? My argument would go to show, that a great increase of litigation would not be likely to take place, from the reason I have given; and that numerous disputed rights to inventions are, and would be continued to be, settled by the knowledge of the parties themselves, or by the explanation of scientific friends and others, and a small portion only would come into court, as containing points of great difficulty. I would wish to give my opinion, that the greatest encouragement ought to be given to every species of invention.—*Hawkins*, 1829.

† It has been shown that the present system arrests only 4 per cent. of the claims for patents; see sec. 17.

‡ Evidence before Commons' Committee on Record Commission, 4496.

41. In the particular case of invention, direct experience has proved the contrary. The thousand registrations effected under the "Utility" Designs Act have not encouraged litigation. Inventors oppressed by the patent laws have taken refuge under this Act, and as we have seen, have registered (see *ante*, § 29), many inventions as being "forms or configurations;" whereas it is notorious that the object of the claims is the protection of a new mechanical action or contrivance; and, besides the number of rights thus admitted, there has been the further incentive to litigation from the doubts which notoriously hang over such registrations. Still, irreconcilable as the Registration Act is perfectly well known to be with the common law of patents, and questionable as are many of the rights claimed under it, it has *not* been the source of increased litigation, but a much-improved tone of morals has been generated among inventors by its existence, who respect the Registration, notwithstanding its illegality. It is thus proved, that if an inventor declares his right, although the law does not strictly recognise it, it becomes respected. In this case the illegality of the Registration is surely an additional motive for litigation and piracy; but there have been very few cases of infringement, and it is quite notorious that very little litigation has arisen out of the "Utility" Registration Act.

42. It would thus appear that it is simply the business of the State to provide an easy means of registration of claims, which the law should regard as valid until they were proved to be otherwise, as is the case in almost every civilized country but our own; and the establishment of any tribunal to investigate claims, either before they are disputed or afterwards, appears altogether a separate and distinct question, quite independent of the policy of recognising the rights of inventors to the fruits of their labour.

APPENDIX D.

RIGHTS OF INVENTORS.

RESOLUTIONS of the COMMITTEE for LEGISLATIVE RECOGNITION of the RIGHTS OF INVENTORS.

Ordered by the Council of the Society of Arts to be Printed, 26 December 1850.

COMMITTEE.

The Marquis of Northampton.
The Earl of Radnor.
Sir John P. Boileau, Bart.
Sir J. J. Guest, Bart., M.P.
The Right Hon. T. Milner Gibson, M.P.
Henry T. Hope, Esq., M.P.
Samuel M. Peto, Esq., M.P.
Sir James Anderson, Glasgow.
George Brace, Esq.
Henry Cole, Esq.
Charles Dickens, Esq.
J. H. Elliott, Esq.
John Farey, Esq., C.E.
P. Le Neve Foster, Esq., M.A.
Charles Fox, Esq., C.E.
Wyndham Harding, Esq., C.E.
Edward Highton, Esq.

Capt. Boscawen Ibbetson, K.R.E.
Owen Jones, Esq.
Herbert Minton, Esq., the Potteries.
R. S. Newall, Esq., Gateshead.
Dr. Lyon Playfair, F.R.S.
Richard Prosser, Esq., Birmingham.
Dr. J. Forbes Royle, F.R.S.
W. W. Rundell, Esq., Falmouth.
Archibald Slate, Esq., Woodside, Dudley.
J. Jobson Smith, Esq., Sheffield.
Professor Edward Solly, F.R.S.
Robert Sutcliffe, Esq., Idle, Leeds.
John Sylvester, Esq., 96, Great Russell-street, Bloomsbury.
Arthur Symonds, Esq.
Professor Bennet Woodcroft.

SECRETARY: George Grove, Esq.

OBJECTS.

- I.—To subject Inventors, Designers, &c., to no other expenses than such as may be absolutely necessary to secure to them the protection of their inventions.
- II.—To remove the difficulties and anomalies experienced in connexion with patents.

RESOLUTIONS passed to form the Heads of a BILL.

1. That every thing in respect of which a patent may now be granted should be registered.
2. That the benefits afforded by registration should extend to the United Kingdom of Great Britain and Ireland, and the Channel Islands.
3. That the registration should be considered merely as a record of claims, and not as any determination of rights between parties.
4. That it should be competent to an inventor to make disclaimers and to rectify errors in his specification at any period.
5. That registration of inventions should be obtainable for a period of one year on payment of 5*l.*, and should be renewable for four periods of five years each, on payment of 10*l.* at first renewal; of 20*l.* at second renewal; of 50*l.* at third renewal; and of 100*l.* at fourth renewal. [The principle of renewed payments is proposed as a means of testing whether an invention is in use, and of removing useless inventive rights that might otherwise be obstructive of improvements.]
6. That there should be penalties for using the title of "Patent" or "Registration" where none has ever existed.
7. That the present tribunals are insufficient for the trial of subjects of Design and Invention.
8. That it should be permitted to commence actions for infringement of the rights of inventors in the County Courts.

9. That

9. That inasmuch as, contrary to expectation, very little litigation has been created by the rights conferred by the Designs Act of 1842 and 1843, this Committee is of opinion that a fair trial should be given to the working of the proposed system of registration of inventions before any special tribunal to determine inventive rights is substituted for the existing tribunals.

10. That any tribunal before which proceedings are commenced should have power to refer any case for report and certificate to the Registrar, assisted by competent and scientific persons.

11. That upon the illegality of the registration being established by the judgment or order of any competent tribunal, the registration be cancelled.

12. That there should be only one office for the transaction of business connected with the registration of inventions, and the payment of fees in respect thereof.

13. That every person desiring to register an invention should submit two copies of the specification of his claim, accompanied, in every case where it is possible, by descriptive drawings.

14. That the mode and procedure of registration should be regulated by the Board of Trade, subject to a Report to Parliament.

15. That an Annual Report of all specifications registered, with proper indices and calendars, should be laid before Parliament.

16. That a collection of all the specifications should be made, calendered and indexed, and deposited for public information in the British Museum.

17. That it is highly desirable that such a collection should be printed and published.

18. That the surplus profits, after paying office expenses and compensation, should be directly applied to some public purpose connected with invention, but not carried to the Consolidated Fund.

APPENDIX E.

HEADS OF A BILL

To extend the Benefits of Registration to Inventions generally.

(INVENTIONS REGISTRATION AND PROTECTION BILL, 1851.)

Preamble.

Interpretation Clause.

The Copyright.

Office of Registration and Official Proceedings.

Tribunals and Judicial Proceedings.

Special Provisions.

Transitory Provisions.

Explanatory Provisions.

Saving Provisions.

General Provisions.

Short Title Clause.

I. By an Act passed in the 7th year of the reign of Her present Majesty, intituled, "An Act to amend the Laws relating to the Copyright of Design," the proprietor of any new and original Design for any article of manufacture, having reference to some purpose of utility, so far as respects the shape and configuration of such article, did obtain the sole right and property in such Design for the term of Three years; and by an Act passed in the 14th year of the reign of Her present Majesty, intituled, "An Act to extend and amend the Acts relating to the Copyright of Designs," the proprietor of such Designs for articles of utility was enabled provisionally to register the same for the term of One year: it is expedient to extend the benefits of like registration to inventions generally; be it therefore enacted, &c.

II. By the common law, recognized and confirmed by sundry statutes mentioned in the Schedule hereunto annexed, Copyright in Inventions is grantable by Letters Patent under the Great Seal for certain periods.

By the ancient and cumbrous forms in use for such Letters Patent; by the heavy and disproportionable fees exigible in respect thereof; by the want of a proper and accessible registration and publication of existing patents; by the cost and difficulty of obtaining the determination of the tribunals on questions arising in respect thereof, and by sundry other causes, the obtaining such rights by Letters Patent, and the confirming and protecting of such rights, is attended with many discouragements and difficulties, to the great prejudice of the public and the injury of inventors.

By sundry statutes (mentioned in Schedule), Copyright in Designs, applied to articles of manufacture, is obtainable on registration thereof, by a facile and accessible procedure, and on the payment of adequate fees.

It is expedient to extend to inventors the protection afforded to Designs.

III. The term "invention" shall mean the thing invented, and shall apply to every thing in respect of which Letters Patent granting the privilege of exclusively working, making, using or vending it may by law be obtained.

IV. The term "copyright" shall mean the exclusive right to work, make, use and vend an invention.

V. The term "proprietor" shall mean—

1. The first and true inventor.
2. Every person acquiring, for a good or a valuable consideration, an invention.
3. Every person upon whom the property in an invention shall devolve.

VI. The

VI. The expression "within the limits of the Act," shall mean the United Kingdom of Great Britain and Ireland, the Channel Islands, the Isle of Man, the Isle of Scilly.

VII. The expression "duly registered" shall mean the procuring registration by the payment of the prescribed fees, and by the substantial and faithful performance of all the conditions which applicants for registration are required to perform, in order to obtain registration under this Act.

"Registered provisionally" shall mean the registration under this Act of an invention, in the first instance, for the period anterior to complete registration.

VIII. That on duly registering provisionally under this Act any new and original invention not before published within the limits of this Act or elsewhere, and paying the sum of Five pounds, the proprietor of such invention shall be entitled to a copyright therein for the term of One year; and on duly registering completely within the above term any such invention so registered provisionally, and paying the sum of Ten pounds, he shall be entitled to a copyright for a further term of Five years; and if within that period he renew such complete registration, and pay the sum of Twenty pounds, he shall be entitled to a copyright for a second term of Five years; and if within that period he renew such complete registration, and pay the sum of Fifty pounds, he shall be entitled to a copyright for a third period of Five years; and if within that term he renew such certificate, and pay the sum of One hundred pounds, he shall be entitled to a copyright for a fourth term of Five years.

IX. That no person shall be entitled to a copyright in respect of an invention which shall be or have been in use out of the limits of this Act, although the same be first introduced by such person and registered; and if such invention be registered, then, on proof of such wrongful registration in any proceeding before any Court of competent jurisdiction, certified by the Judge or proper officer of such Court, the Registrar shall cancel such registration.

X. The Provisional Registration shall be deemed to be only a record of claims, and not an evidence of the right to the invention; and that at any time within one year from the date of Provisional Registration, disclaimers may be entered, and errors rectified in the specification.

XI. The Complete Registration shall be deemed to be not only a record of claims, but a *primâ facie* determination of the right of parties, and it shall be incumbent on any person objecting to such right to disprove the same.

XII. Provided always, That if for the purpose of aiding, completing, perfecting or improving another invention, it be necessary to use, either wholly or partially, any such invention, the inventor of the said last-mentioned invention may obtain license and authority to use the same, on tendering full compensation for such use, or, in case of dispute or difference, then upon paying such compensation as shall be determined by an award in respect thereof made under this Act.

XIII. That an inventor, maker or author of an invention may authorize its use, or transfer his copyright therein, by any instrument of transfer or assignment, but such transfer or every assignment shall be registered, as to particulars—

Number in Register,
Name of Assignor,
Name of Assignee,
District in which the privilege is granted,

and shall not have effect unless and until it be duly registered.

XIV. If, for aid in completing or improving his own invention, any person desire to use, either wholly or partially, the invention of another person, then, upon duly registering such his desire, and specifying the mode in which he proposes to use it, and the extent of its proposed use, and if he tender compensation, then, on giving notice thereof to the inventor, he shall be entitled so to use it, subject to the condition that he pay such compensation, and that he keep an account of the number of occasions on which he so uses it.

XV. That it shall be lawful for the Committee of Her Majesty's Privy Council for Trade to appoint a fit and proper person to be and be called Registrar of Inventions and Designs, who shall be charged with the registration of all inventions, and with the granting of certificates thereof, and also to appoint a certain number of persons of scientific knowledge, skill and experience in matters of invention, *e. g.*, mechanics, chemistry, and manufactures, whose duty it shall be to assist in the examination and classification and registration of inventions, and in the publication thereof, and also in any references which may be made under this Act; and that till such appointments be made, the Registrar for Designs, and all the officers, clerks and servants appointed under and acting in execution of the Designs Act, shall perform the like duties under this Act.

XVI. That upon application being made to the Registrar of Inventions and Designs, accompanied by a specification and sufficient descriptive drawings, together with a model (if the applicant think fit), the Registrar shall give to such inventor a certificate of provisional registration, whereupon the said invention shall be deemed to be duly registered provisionally,

visionally, but the date whence the period of copyright is to be computed shall be the date of such application; and that on presenting a memorandum, containing a reference to the number, date and nature of former registrations, the Registrar shall give a certificate of complete or renewed registration, as the case shall require.

XVII. That Her Majesty's Committee of Privy Council for Trade shall from time to time make such regulations as to such Committee shall seem fit, in reference to the matter and the form of the application, specification, certificates and other documents and proceedings to be employed in obtaining registration, or consequent thereon and incident thereto; but subject to and in default of such regulations, there shall be set forth, with such differences as the respective cases shall require, in such application such and the same matters as are now set forth in petitions to Her Majesty for Letters Patent for the like object; and in every such specification such and the same particulars in such and the same manner as are now set forth in a specification of an invention under Letters Patent; and in every such certificate such and the same particulars in such and the same manner as are usually set forth in Letters Patent; and every such specification may be altered and amended as in the case of Letters Patent; and upon application by petition to the Court of Chancery, every such registration and every such certificate thereof may be cancelled or revoked in such and the same manner as Letters Patent may be cancelled or revoked, and also upon award to that effect made under this Act by virtue of a reference in that behalf.

XVIII. And in making regulations, the said Committee of Privy Council for Trade may prescribe the course and order of proceeding to be observed on lodging applications, and the specifications, drawings and other documents accompanying such application, in examining, objecting to and amending the same, in making and granting the certificates of registration, and in notifying and publishing such applications and certificates, in registering, filing and depositing all such documents of registration, and in searching for, inspecting, granting copies of or extracts from the records.

XIX. That the Board of Trade shall cause a sufficient list, digest or index of all Letters Patent for Inventions passed before the year 1851, and of all Letters Patent passed after such period, to be made and published, and shall cause a sufficient notification of all registrations effected under this Act, and of the periods for which such registrations shall have been made, to be published weekly in the "London Gazette," and shall cause a yearly Report to be prepared of registrations effected, the periods for which they have been effected of all registrations which have lapsed, and all matters and things concerning the operation of this Act and of the Designs Acts of 1842, 1843 and 1850, which shall appear suitable to the said Board, to be laid before Parliament.

XX. That the Commissioners of the Treasury shall and may from time to time fix, alter and revise the amount of the fees appointed to be taken under this Act, in any cases where they may think it expedient to do so, and under the Designs Act of 1842 and 1843; and shall make inquiry into any losses which any person may sustain by reason of the operation of this Act; and shall have power, firstly, out of the receipts from the fees appointed to be taken under this Act, to pay, firstly, the salaries of the officers and servants employed under this Act, and all expenses incurred in carrying out the same; secondly, reasonable compensation for such losses; thirdly, to appropriate such amount as they may think fit, to the encouragement of invention in arts and science; and fourthly, to cause the balance (if any) to be carried to the Consolidated Fund of the United Kingdom, and be paid accordingly into the receipt of Her Majesty's Exchequer at Westminster.

XXI. And that if any doubt, difference or dissatisfaction or other question arise between any persons whomsoever upon any matter within this Act, it may be referred by any such person by requisition in writing, setting forth the matter to the Registrar of Inventions and Designs, who shall proceed therein according to the exigency of the case, and if any matter so referred require scientific knowledge, skill, judgment or experience, he shall call in the aid and assistance of one or more of the Referees to ascertain the facts, and after hearing the parties ascertaining the facts, either as aforesaid or by evidence or inspection, or by all these means, and considering the matter, the Registrar shall make one or more awards as to him shall seem fit, and by such awards make such determination or order as shall be proper to the case, and the Registrar may award the costs to be paid by one or more or all of the parties, as he shall think fit.

XXII. And in making such requisitions, in notifying the same to the parties, in referring matters to the Referees, in taking evidence and in making inspections, in hearing the parties and in making awards, in publishing and notifying the same, and in all other proceedings for carrying out such references, the Registrar and all parties concerned shall observe such order and course of proceeding, and such forms, as shall be appointed by any regulations made in that behalf, by order of Her Majesty's Privy Council; and subject to and in default of such order, the Registrar shall prepare such Regulations and Instructions as the nature of the case shall require.

XXIII. Provided always, if any party to such requisition desire to have any matter or question tried by a jury, then, on his signifying and setting forth in writing such desire, and the matters to be tried, it shall be referred to the County Court of the place where the matter shall arise or be, and be tried by a jury there; and upon the verdict of the jury being certified, the Registrar shall proceed as the exigency of the case shall require.

XXIV. And

XXIV. And all Judges and others acting judicially in the matter of any inventions privileged by Letters Patent, or registered under this Act, may, either upon their own mere motion, or upon the application of any or either of the parties concerned, refer to the said Registrar for his certificate in any matter pending before them as the matter of fact or matter of law, as to them shall seem fit; and thereupon the said Registrar shall proceed as in other cases of reference.

XXV. If the Registrar refuse to act, or a party appeal, the Court of Queen's Bench may make order thereon.

XXVI. That if during the existence of any such copyright, any person shall either do or cause to be done any of the following acts with regard to any articles of manufacture, or substances in respect of which the copyright of such invention shall be in force, without the license or consent in writing of the registered proprietor thereof; (that is to say),

If any person shall apply any such invention or any fraudulent imitation thereof, for the purpose of sale, to any article of manufacture, or any substance, artificial or natural, or partly artificial and partly natural:

If any person shall publish, sell or expose for sale, any article of manufacture, or any substance to which such invention, or any fraudulent imitation thereof, shall have been so applied, after having received, either verbally or in writing, or otherwise, from any source other than the proprietor of such invention, knowing that his consent has not been given to such application, or after having been served with or had left at his premises a written notice signed by such proprietor or his agent to the same effect:

Every such person shall forfeit for every offence a sum not less than Five pounds and not exceeding Thirty pounds to the proprietor of the Design in respect of whose right such offence has been committed; and such proprietor may, at his option, either bring such action as he may be entitled to for the recovery of any damages which he shall have sustained by or by reason of any such act, or may proceed for the recovery of such penalty: In England, either by an action of debt or on the case against the party offending, or by summary proceeding before Two Justices having jurisdiction where the party offending resides: In Scotland, by action before the Court of Session in ordinary form, or by summary action before the Sheriff of the county where the offence may be committed or the offender resides, who, upon proof of the offence or offences, either by confession of the party offending, or by the oath or affirmation of one or more credible witnesses, shall convict the offender and find him liable in the penalty or penalties aforesaid, as also in expenses; and it shall be lawful for the Sheriff, in pronouncing such judgment for the penalty or penalties and costs, to insert in such judgment a warrant in the event of such penalty or penalties and costs not being paid, to levy and recover the amount of the same by poinding: Provided always, That it shall be lawful to the Sheriff, in the event of his dismissing the action and assolzieing the defender, to find the complainer liable in expenses; and any judgment so to be pronounced by the Sheriff in such summary application shall be final and conclusive, and not subject to review by advocacy, suspension, reduction or otherwise: In Ireland, either by action in a Superior Court of Law at Dublin, or by civil bill in the Civil Bill Court of the county or place where the offence was committed.

If before, or without the registration of an invention, or after the copyright therein shall have expired, any person shall put on any article the word "registered," or any mark indicating that the article is registered or required to be so applied, or any marks corresponding with or similar thereto, or publish, sell or expose for sale any such article with any such marks so unlawfully applied, knowing that any such marks have been so applied, he shall forfeit for every such offence a sum not exceeding Five pounds nor less than One pound, which may be recovered by any person proceeding for the same by any of the remedies hereby given for the recovery of penalties for pirating any such invention.

XXVII. That no action or other proceeding for any offence or injury under this Act shall be brought after the expiration of Twelve calendar months from the commission of the offence; and in every such action or other proceeding, the party who shall prevail shall recover his full costs of suit or of such other proceeding.

XXVIII. That in the case of any summary proceeding before any Two Justices in England, such Justices are hereby authorized to award payment of costs to the party prevailing, and to grant a warrant for enforcing payment thereof against the summoning party, if unsuccessful, in the like manner as is hereinbefore provided for recovering any penalty with costs against any offender under this Act.

XXIX. Any writing purporting to be a certificate of the Registrar shall, in the absence of evidence to the contrary, be received as evidence without proof of the handwriting of the signature thereto, or of the seal of office affixed thereto, or of the person signing the same being the Registrar.

XXX. That in any suit at law or in equity which may be instituted by the proprietor of any invention, or the person lawfully entitled thereto, relative to such invention, if it shall appear to the satisfaction of the Judge having cognizance of such suit that the invention has been registered in the name of a person not being the proprietor or lawfully entitled thereto, it shall be competent for such Judge, in his discretion, by order or decree in such suit, to direct either that such registration be cancelled (in which case the same shall thence-

forth be wholly void), or that the name of the proprietor of such invention, or other person lawfully entitled thereto, be substituted in the register for the name of such wrongful proprietor or claimant, in like manner as is hereinbefore directed in case of the transfer of an invention, and to make such order respecting the costs of such cancellation or substitution, and of all proceedings to procure and effect the same, as he shall think fit; and the Registrar is hereby authorized and required, upon being served with an official copy of such order or decree, and upon payment of the proper fee, to comply with the tenor of such order or decree, and either cancel such registration, or substitute such new name, as the case may be.

XXXI. That it shall be lawful for any Court, Judge, Justice of the Peace, or other judicial officer before whom any suit or proceeding may be brought or taken, to require the Registrar, with the assistance of one or more Referees properly qualified, to certify and report upon the matters in question in such suit, and particularly as to the novelty and the originality of the invention, and in what respects and to what extent it agrees with or differs from another invention; and as to all matters which may require special scientific knowledge, skill or judgment, and subject to such regulations as the Board of Trade may appoint in that behalf, the Registrar shall, with such assistance as aforesaid, proceed to examine and inquire into the matter according to the exigency of the case.

XXXII. That the Commissioners of the Treasury shall from time to time fix fees of office to be paid for the services to be performed by the Registrar, as they shall deem requisite, to defray the expenses of the said office, and the salaries or other remuneration of the said Registrar, and of any other persons employed under him, with the sanction of the Commissioners of the Treasury, in the execution of this Act; and the balance, if any, shall be carried to the Consolidated Fund of the United Kingdom, and be paid accordingly into the receipt of Her Majesty's Exchequer at Westminster; and the Commissioners of the Treasury may regulate the manner in which such fees are to be received, and in which they are to be kept, and in which they are to be accounted for; and they may also remit or dispense with the payment of such fees in any cases where they may think it expedient so to do: Provided always, That the fee shall not exceed the fees mentioned in the Table of Copyrights hereto annexed, and headed Maximum Fees for Registering an Invention.

XXXIV. Provided always, That if it shall be made to appear to Her Majesty's Committee of Privy Council for Trade that

it shall be lawful for the Lords of the Treasury, on the recommendation of the said Committee of Her Majesty's Privy Council for Trade, to authorize the Registrar to remit or dispense with the fees of office upon the recommendation to be made in that behalf, setting forth the grounds whereon such remission or dispensation is advised.

XXXV. That if either the Registrar, or any person employed under him, either demand or receive any gratuity or reward, whether in money or otherwise, except the salary or remuneration authorized by the Commissioners of the Treasury, he shall forfeit for every such offence Fifty pounds to any person suing for the same by action of debt in the Court of Exchequer at Westminster, and he shall also be liable to be either suspended or dismissed from his office, and rendered incapable of holding any situation in the said office, as the Commissioners of the Treasury shall see fit.

XXXVI. All Rules and Regulations made by virtue of this Act shall be published in the "London Gazette," and shall be laid before Parliament, if Parliament be sitting, forthwith, on the issuing of such Rules and Regulations; and if Parliament be not sitting, then within Fourteen days after the commencement of the then next session; and such Rules and Regulations, or any of them, shall be published or notified by the Registrar of Designs in such other manner as from time to time he may deem expedient, or as the Committee of Privy Council for Trade shall think fit to direct.

XXXVII. That in citing this Act in other Acts of Parliament, and in any instrument, document or proceeding, it shall be sufficient to use the words and figures following; (that is to say), "The Inventions Act, 1851."

APPENDIX F.

REFERENCES TO REGISTRAR.

PROCEEDINGS BEFORE HIM.

Judicial Proceedings on References in detail, showing the Matter and Tenor of the Regulations, and full scope of the Provisions inserted in the Heads.

Requisition.	Administering Oath or Oaths.
Reference to Experts.	Refusal to give Evidence.
Hearing and Inspection.	Giving false Evidence.
Award or Order.	Witnesses.
Making an Award a Rule of Court.	Amendment of Requisition and Proceedings.
Trial by Jury at County Court.	Rule to compel Registrar to act, or to obtain reversal or modification of Award.
No party to repudiate Reference.	Determining Costs of Reference.
Notice of Hearing.	Appointment of Special Referees.
Proceedings in absence.	Service of Notices.
Adjournment of Hearings.	
Summoning of Witnesses.	
Compelling attendance of Witnesses.	

1. THAT if any doubt, difference or dissatisfaction arise between any persons whomsoever as to any invention, or any arise between any party with regard to any matter provided for under this Act, whether involving questions of law or questions of fact, then it shall be lawful for both or either of the parties concerned in any such case to refer any such matter to the Registrar, by requisition in writing.

2. And if any such requisition relate to any matter whatever requiring the exercise of professional or scientific knowledge, skill or judgment, then and in any such case it shall be the duty of the Registrar to call in the aid and assistance of one or more of the Referees specially conversant with such matter, to ascertain the facts and circumstances of the case in respect of such matter, and to certify upon such matter; and thereupon the Registrar shall dispose of the matters in reference, together with such matters incidental thereto or involved therein, either by one award or by several awards, as he may think proper, and in such award or awards shall make such determination, appointment, order or direction as the case may require.

3. And if it appears to the Registrar that the matter of any requisition is such as not to require the exercise of the professional scientific knowledge, skill or judgment of a Referee as aforesaid, then it shall be lawful for him to dispose of the matters in reference to him, together with such matters incidental thereto or involved therein, either by one award or by several awards, as he shall think proper; and in such award or awards to make such determination, appointment, order or direction as the case shall require, without the certificate of any Referee as aforesaid.

4. And every such award being in writing, and stamped with the seal of the Registrar, shall be binding and conclusive as to the matters thereby determined, ordered or directed as aforesaid, against every person whomsoever (including the Queen's Majesty) being a party to such reference.

5. Provided also, that at any time after any award shall have been made by virtue of the provisions of this Act, it shall be lawful for any person, being a party to or concerned in the reference upon which such award shall have been made, or who may be affected by such award, to move in any of Her Majesty's Superior Courts, that such award be made a rule of such court, and the judges of such court shall make such award a rule of such court accordingly.

6. That if any party to any such reference shall, within four days after being served with a copy of the requisition in such reference, signify in writing to the Registrar his desire to have tried by a jury the matters of fact in question, and the issues to be tried, and if within four days after signifying such desire as aforesaid, such party shall, with two sufficient sureties, to the satisfaction of the Registrar, have entered into a recognizance before him, in such sums as such Registrar shall determine, to try such issues, and in the event of a verdict being found against him, to pay all the costs and expenses of such trial, then it shall be lawful for such party to have such question tried by a jury in the County Court established for the place or locality where the parties against whom such requisition is made shall reside

reside or carry on his business, under and pursuant to the provisions of the Act passed in the 9th and 10th years of the reign of Her present Majesty, "for the more easy Recovery of Small Debts and Demands in England," and such question shall be tried at the first practicable holding of such County Court next after such recognizance shall have been entered into; and 14 days at the least before the time appointed for holding such County Court as aforesaid, it shall be the duty of such party to lodge a plaint with the Clerk of the said Court, at his office; and such plaint shall set forth the question to be tried, and it shall thereupon be the duty of such Clerk to issue his summons according to the rules for the time being in force for regulating the practice of such Court, containing a correct copy of such plaint, and to cause the same to be served by the plaintiff of such Court upon the parties to such requisition, and also to issue his summons, according to the provisions of the said Act, to a sufficient number of persons competent to serve on juries, requiring them to attend, at a time and place to be mentioned in such summons, for the purpose of trying such question; and it shall be lawful for the Clerk of such County Court, by his summons, according to the provisions of the said Act, to require the attendance at such trial of any person whom the parties concerned shall require to be summoned, to give evidence concerning the matters in issue, and it shall be lawful for the Judge of such County Court, if he think fit, to authorize and direct the jury to view and examine the matters in question, or the models, specifications and drawings thereof, and that at such time and place as he shall think proper.

7. And the Jury to be empanelled at the holding of the said County Court shall inquire and try, and by their verdict determine the matters in issue; and the Judge of the said County Court shall give judgment according to such verdict: and thereupon the Registrar shall make his award according to such verdict and judgment, and shall and may thereby award to any party concerned such costs as he may deem reasonable; and such verdict, judgment and award shall be binding and conclusive.

8. And if, after entering into recognizance as aforesaid, the party by whom such requisition was made shall fail to make such plaint as aforesaid, or to prosecute the same to a termination, or to do or perform any other act, matter or thing conditioned to be done or performed in such recognizance, shall have become forfeited, and upon a declaration to that effect being made by any party concerned before one of Her Majesty's Justices of the Peace, the same shall be certified by such Justice, and the sum therein mentioned shall be levied, recovered and estreated in the same manner as other forfeited recognizances under this Act; and it shall be lawful to proceed with the reference as though such desire as aforesaid had not been signified.

9. And further, for regulating references and the proceedings thereon, be it enacted, that after any requisition shall have been registered by the Registrar, in pursuance of the provisions herein contained, it shall not be lawful, without the consent of every person concerned in such reference, for any party to such reference, or any person concerned therein, to revoke or repudiate such reference, or the power or authority of the Registrar, Referees or other person acting in the matters thereof by virtue of the provisions of this Act.

10. And it shall be lawful for the Registrar acting in the matters of any reference under this Act, from time to time, as occasion shall require, during the dependence of such reference, to hear the parties to or concerned in such reference; and it shall be lawful for the Registrar to exercise, in every case of reference under this Act, such and the same powers as are possessed or exercised by arbitrators appointed or acting under a rule of any of Her Majesty's Superior Courts, or under the order of any Judge thereof.

11. Provided always, that before any hearing by the Registrar, pursuant to the provisions hereinbefore contained, the Registrar shall cause to be transmitted to the person by whom the requisition was made, a notice or summons, stating the place and time appointed for such hearing, and also a sufficient number of the copies of such notice or summons for the purpose of being served upon such persons as the Registrar shall deem entitled to have notice of such hearing; and the person making such requisition shall cause such notices to be served accordingly.

12. And in case any party who may be a party to any reference, or who may be concerned therein, shall fail, after Three clear days' notice or summons, to attend at any hearing in the matters thereof, it shall nevertheless be lawful to proceed with and conclude such reference.

13. And it shall be lawful for the Registrar holding any hearing to adjourn the same from time to time, and to appoint other or additional hearings upon the matters of any pending reference.

14. And it shall be lawful, in case of any reference under this Act, for the Registrar, by summons in writing under his hand and seal of office, from time to time, as often as occasion shall arise, to require the attendance at any time and place, to be mentioned in such summons, of any person, whether residing within the local limits of this Act or not, who may be or may be deemed to be able to give evidence on the matters of any such reference; and also by such summons to require the production of any writing or other document mentioned therein which may relate to or affect any matter of such reference, and if any person so summoned do not, without just excuse, attend in obedience to such summons, or without just excuse fail to produce pursuant thereto any writing or other

document as aforesaid, he shall be liable to a penalty not exceeding Five pounds, at the discretion of the Registrar.

15. And it shall be lawful for any person concerned in such reference to make application to the Registrar for the apprehension of any person so failing to attend, and after proof upon oath or affirmation that such summons has been served upon such person, either personally or by leaving the same for him with some person at his last or usual place of abode, then it shall be lawful for such Registrar to issue a warrant, under his hand and seal, to bring and have such person before him, as the case may be, at a time and place in the said warrant mentioned.

16. And it shall be lawful for the Registrar, and he is hereby empowered, to administer an oath or an affirmation, in any case where an affirmation is authorized by law, to any witness who may appear before them.

17. And if upon the appearance before the said Registrar of any person so summoned as aforesaid, either in obedience to such summons, or by notice of such warrant, he shall refuse to be examined upon oath or affirmation (as the case may be) concerning the premises, or shall refuse to take such oath or affirmation, or having taken such oath or affirmation shall refuse to answer such lawful questions as shall be put to him concerning the matter, without having any just or legal excuse for such refusal, then it shall be lawful for the Registrar, by warrant under his hand and seal, to commit the person so refusing to the common gaol or house of correction for the city, county, borough, liberty or division where such person shall then be, there to remain and be imprisoned for any time not exceeding Seven days, unless he shall in the mean time consent to be examined and to answer concerning the matter.

18. And if any person who shall give evidence in any proceeding under this Act shall, upon such oath or affirmation, wilfully and corruptly give false evidence, then every such person shall be deemed to be guilty of perjury.

19. Provided always, that any person who shall be required to attend to give evidence, or to produce any writing or document as aforesaid, shall be entitled to the like conduct-money, and to the payment of expenses, as he would be entitled to for and upon attendance at any trial in any of Her Majesty's Superior Courts, and shall not be compelled to produce any writing or other document which he would not be compelled to produce at any such trial, or to attend upon more than two consecutive days to be named in such summons.

20. And if it appear to the Registrar that any requisition is defective or insufficient, either in setting forth the parties concerned, or in setting forth the facts of the case, or the matters referred, or that any certificate made to him under this Act is defective or insufficient, then it shall be lawful for him to require the amendment of such requisition or certificate, and if he think fit, to refuse to take any proceeding upon such requisition or certificate, until the same shall have been amended.

21. And in all cases where the Registrar shall refuse to do any act relating to the duties of his office, or where any party concerned shall appeal from the act of the Registrar, it shall be lawful for any party requiring such act to be done, or requiring to appeal, to apply to Her Majesty's Court of Queen's Bench, upon an affidavit of the facts, for a rule, calling upon the Registrar, and also the party to be affected by such act, to show cause why such act should not be done, or should not be reversed or modified; and if after due service of such rule good cause be not shown against it, the said Court may make the same absolute with or without, or upon payment of costs, as to them shall seem meet, and the Registrar upon being served with such rule absolute shall obey the same, and shall do the act required, or reverse or modify his act, and no action or proceeding whatsoever shall be commenced or prosecuted against the Registrar for having obeyed such rule, and done such act so thereby required as aforesaid, or having so reversed or modified his act.

22. And it shall be lawful for the Registrar, in every case of reference under the provisions of this Act, to determine and appoint the persons by whom either ultimately, or in the first instance, and the proportions in which, and the time when, the costs, charges and expenses of or incidental to such reference shall be borne and paid.

23. And in any award, certificate, notice or other document or instrument whatsoever, made and executed by the Registrar, or by any Referee, it shall not be necessary to recite, state, or otherwise refer to the appointment of any such officer to his office, or to recite or otherwise refer to the power or authority under or by virtue of which any such document shall be made or executed, and no objection shall be taken or allowed in any court of law or equity to any award, or any certificate to be made under the provisions of this Act, for or on account of any alleged defect in the form of such award or certificate, or in the description of such award or certificate to which the same relates, or for or on account of any alleged variance between such award or certificate, and the requisition upon which the same shall have proceeded, or for or on account of any alleged irregularity or defect in the proceedings which shall have been had or taken by any party by or before the Registrar or any referee, so that the course of proceeding herein directed to be taken in such cases as aforesaid shall have been substantially followed, and that such award or certificate shall designate with sufficient certainty the matters and things to which it relates.

24. And

24. And proof of the service of all notices which by this Act are required to be served, and of the performance of any act, deed, matter or thing which by this Act is required to be done by any party to a reference, or any other person, and of the occurrence or existence of any fact or condition precedent to any reference or other proceeding, may be made (if the Registrar think fit) by the declaration in writing of the person serving such notice or performing such deed, act, matter or thing, or cognizant of his own knowledge of the existence of such fact or condition precedent; and every such declaration shall be made under and according to the provisions of the Act passed in the fifth and sixth years of the reign of his late Majesty King William the Fourth, intituled, "An Act to repeal an Act for the more effectual abolition of Oaths and Affirmations taken and made in various departments of the State, and to substitute Declarations in lieu thereof, and for the more entire suppression of voluntary and extra-judicial Oaths, and to make other provision for the abolition of unnecessary Oaths;" and it shall be lawful for the Registrar to take and receive any such declaration.

25. That it shall not be lawful to bring any action or suit for anything done in pursuance of this Act after the expiration of Twelve months after such thing shall have been done, nor unless notice in writing of the intention to bring such action or suit, and of the grounds thereof, shall have been given to the person or persons intended to be sued at least One month before commencing such action or suit; and if upon the trial of any such action or suit it appear that the said matter or thing was authorized by or done in pursuance of this Act, or that such action or suit has not commenced within the time herein limited, or that no sufficient notice has been given as aforesaid, or that such action or suit was brought before the expiration of One month after such notice, or that sufficient satisfaction was made or tendered before such action or suit was brought, or if upon plea of payment of money into Court it shall appear that the plaintiff has not sustained damages to a greater amount than the sum paid into Court, then, and in every such case, the jury shall find their verdict for the defendant; and in that case, or if the plaintiff in any such action or suit become nonsuited, or suffer a discontinuance of any such action or suit, or if judgment be given for the defendant therein, or demurrer or otherwise, then the defendant shall be entitled to have judgment to recover full costs of suit, and to such remedy for recovering the same as any defendant may have by law.

26. And if the defendant in any such action as last aforesaid apply to the Court in which such action is pending, or to any Judge thereof, it shall be lawful for such Court, or any such Judge, to require the plaintiff to give such security as such Court or Judge shall think fit, for the payment of all costs, charges and expenses incurred or to be incurred in and about the said action, and which shall be or become payable by him on the taxation thereof by the proper officer: Provided always, that if before any action be commenced, the party who committed or caused to be committed any defective or irregular proceeding make or cause to be made to the party aggrieved tender of sufficient amends, then such last-mentioned party shall not be entitled to recover in such action; and although such tender shall not have been made, yet if at any time before issue joined the Court in which such action shall be pending, or a Judge of such Court, shall grant leave to that effect, it shall be lawful for the defendant to pay into Court, or any sum of money by way of compensation or amends, in such manner and under such regulations as may be in force as to the payment of costs, and the form of pleading in the Court where such action shall be so pending.

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TO
THE PRINCIPAL MATTERS
CONTAINED IN
THE MINUTES OF EVIDENCE
TAKEN BEFORE THE
SELECT COMMITTEE OF THE HOUSE OF LORDS,
APPOINTED TO CONSIDER OF
THE BILL,
INTITULED,
“ AN ACT further to amend the Law touching LETTERS PATENT for INVENTIONS ;”
AND ALSO OF
THE BILL,
INTITULED,
“ AN ACT for the further Amendment of the Law touching LETTERS PATENT
for INVENTIONS ;”
AND TO REPORT THEREON TO THE HOUSE.

Session 1851.

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(1.) Useless offices and stages, causing delay and expense, - - - - -	{	Webster, - - -	1. 108. 111.
		Carpmael, - - -	128. 146.
		Hodge, - - -	477.
		Wyatt, - - -	677.
		Duncan, - - -	791.
		Roberts, - - -	1335. 1377.
		Fothergill, - - -	1431. 1455.
		Cole, - - -	1869.
		Mercer, - - -	2052.
		Prosser, - - -	2306.
(2.) Want of protection until patent actually sealed, - - - - -	{	Solicitor-general,	2798.
		Webster, - - -	28.
		Wyatt, - - -	677.
		Hill, - - -	1940. 2032.
		Webster, - - -	20.
(3.) Abuses consequent on general or vague titles, and use made of the interval for specifying, - - - - -	{	Duncan, - - -	835.
		Fairrie, - - -	916.
		Roberts, - - -	1283.
		Woodcroft, - - -	1757.
		Brunel, - - -	1798.
		Hill, - - -	1954. 1971.
		Master of the Rolls,	2791.
		Hodge, - - -	492.
		Wyatt, - - -	677.
		Spence, - - -	885.
(4.) Defects of caveat system, both as regards inventors and public, - - - - -	{	Roberts, - - -	1239. 1247.
		Fothergill, - - -	1455.
		Hill, - - -	1953.
		Prosser, - - -	2396.
		Westhead, M.P., -	2580.
		Hodge, - - -	565.
		Fothergill, - - -	1433.
		Cubitt, - - -	1523.
		Woodcroft, - - -	1563. 1575.
		Brunel, - - -	1775.
(5.) Re-patenting of same subject, - - - - -	{	Westhead, M.P., -	2564.
		Lloyd, - - -	2729.
		Webster, - - -	3.
		Spence, - - -	881.
		Fairbairn, - - -	1226.
		Fothergill, - - -	1452.
		Woodcroft, - - -	1563. 1608.
		Mercer, - - -	2044.
		Prosser, - - -	2309. 2421.
		Westhead, M.P., -	2564.
(6.) Want of access to specifications, - - - - -	{	Lloyd, - - -	2730.

General Heads.

Name of Witness and Number of Question.

PATENTS, defects of present system—*continued*.

- (7.) Subsistence of patents for useless inventions, -
- (8.) Their excessive cost, - - - - -
- (9.) Three distinct proceedings for United Kingdom, -
- (10.) Question of colonial patents, - - - -
- (11.) Repayment of same fees in case of renewal, -
- (12.) Insufficient notices of objections in legal proceedings; pleadings in actions, - - -
- (13.) Granting of patents for foreign inventions when in use abroad, - - - - -

PATENTS, remedies proposed for :

- (1.) Abolition of useless offices and stages; and substitution of a public and private office, -
- (2.) Protection from date of application, provisional specification being deposited in all cases, -
- (3.) To be confined to one subject-matter, and nature thereof defined by provisional specification, -

Campin, - -	725. 748.
Hale, - -	1390.
Brunel, - -	1803.
Rendel, - -	2522. 2558.
Westhead, M.P. -	2653.
May, - -	2744.
Webster, - -	20. 29.
Carpmael, - -	130. 383.
Hodge, - -	573.
Roberts, - -	1340.
Fothergill, - -	1478.
Brunel, - -	1774.
Mercer, - -	2052.
Woodcroft, - -	1723.
Sir D. Brewster, -	2434. 2486.
Westhead, M.P. -	2566.
May, - -	2724.
Master of the Rolls,	2805.
Webster, - -	66.
Duncan, - -	790.
Spence, - -	841. 896.
Macfie, - -	981.
Newton, - -	1043. 1064.
Fairbarn, - -	1118. 1158.
Roberts, - -	1336.
Hill, - -	2013.
Webster, - -	67.
Carpmael, - -	240.
Fairrie, - -	914.
Macfie, - -	997.
Cole, - -	1919.
Hill, - -	2013.
Reid, - -	2268.
Westhead, M.P. -	2667.
Webster, - -	2784.
Webster, - -	10. 14.
Hill, - -	1953. 1967.
Rendel, - -	2557.
Lloyd, - -	2712.
Hodge, - -	640.
Fairrie, - -	971.
Fothergill, - -	1496.
Cubitt, - -	1532.
Cole, - -	1921.
Reid, - -	2271.
Sir D. Brewster, -	2477.
Rendel, - -	2545.
Lloyd, - -	2726.
May, - -	2780.
Master of the Rolls,	2816.
Webster, - -	23. 28. 108.
Wyatt, - -	677.
Campin, - -	763.
Spence, - -	855.
Fairbarn, - -	1196.
Fothergill, - -	1455.
Cole, - -	1896.
Solicitor-general,	2798.
Webster, - -	28. 100.
Hodge, - -	479.
Campin, - -	727.
Duncan, - -	791.
Fairbarn, - -	1159.
Roberts, - -	1255.
Fothergill, - -	1458. 1468.
Cubitt, - -	1527.
Woodcroft, - -	1620.
Cole, - -	1926.
Hill, - -	1944. 1986.
Mercer, - -	2071. 2080.
Prosser, - -	2337.
Rendel, - -	2525. 2545.
Westhead, M.P. -	2571.
Master of the Rolls,	2788.
Webster, - -	20.
Duncan, - -	835.
Roberts, - -	1283.
Rendel, - -	2541.
Westhead, M.P. -	2623.
Master of the Rolls,	2789.

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Name of Witness and Number of Question.

PATENTS, remedies proposed for—*continued*.

(4.) Abolition of caveat system; application to be advertised, and objections delivered in writing, - - - - -	Hodge, - -	491.
	Duncan, - -	800.
	Roberts, - -	1244.
	Fothergill, - -	1455.
	Hill, - -	1987.
	Sir D. Brewster, - -	2439.
	Rendel, - -	2528.
	Westhead, M. P. - -	2582.
	Master of the Rolls, - -	2821.
	Webster, - -	81.
(5.) Previous examination as a check upon re-patenting of same subject, - - - - -	Hodge, - -	576. 626.
	Campin, - -	749.
	Fairbarn, - -	1180.
	Fothergill, - -	1441. 1511.
	Woodcroft, - -	1689.
	Cole, - -	1900.
	Webster, - -	6. 90.
	Carpmael, - -	234. 445.
	Hodge, - -	580.
	Campin, - -	763.
(6.) Indices to be made, and specifications to be published, - - - - -	Spence, - -	881.
	Macfie, - -	1012.
	Fairbarn, - -	1226.
	Fothergill, - -	1436. 1511.
	Woodcroft, - -	1563. 1695.
	Hill, - -	1980.
	Mercer, - -	2043.
	Reid, - -	2279.
	Prosser, - -	2307. 2422.
	Sir D. Brewster, - -	2476.
(7.) Extinction of useless patents by increased periodical payments, - - - - -	Westhead, M. P. - -	2565.
	Lloyd, - -	2706. 2722.
	Hodge, - -	575.
	Campin, - -	691.
	Spence, - -	877.
	Fairrie, - -	920.
	Fairbarn, - -	1117.
	Hale, - -	1390.
	Fothergill, - -	1508.
	Cole, - -	1928.
(8.) Cost to be of small amount in first instance, - - - - -	Mercer, - -	2071.
	Prosser, - -	2383.
	Rendel, - -	2528. 2558.
	Westhead, M. P. - -	2653.
	Hill, - -	2688.
	May, - -	2741. 2772.
	Webster, - -	99.
	Hodge, - -	577.
	Wyatt, - -	664.
	Spence, - -	867.
(9.) To be for United Kingdom, - - - - -	Fairrie, - -	918.
	Fairbarn, - -	1116. 1129.
	Roberts, - -	1262.
	Fothergill, - -	1494.
	Cole, - -	1926.
	Mercer, - -	2071.
	Westhead, M. P. - -	2568.
	May, - -	2734.
	Webster, - -	66.
	Duncan, - -	790. 824.
(a) But separately, if desired, - - - - -	Spence, - -	841. 896.
	Macfie, - -	981.
	Newton, - -	1043. 1064.
	Fairbarn, - -	1118. 1158.
	Roberts, - -	1336.
	Hill, - -	2013.
	Prosser, - -	2387.
	Sir D. Brewster, - -	2478.
	Rendel, - -	2544.
	Westhead, M. P. - -	2567.
(10.) For colonies to be left to local authorities, - - - - -	May, - -	2738.
	Carpmael, - -	395.
	Campin, - -	697.
	Webster, - -	67.
	Hodge, - -	621.
	Cole, - -	1919.
	Hill, - -	2013.
	Reid, - -	2268.
	Prosser, - -	2388.
	Westhead, M. P. - -	2591.

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PATENTS, remedies proposed for—*continued*.

(11.) In case of extension to be without fees, -	{	Westhead, -	-	2667.
		Webster, -	-	2784.
(12.) In legal proceedings, plaintiff and defendant to furnish particulars of breaches and objections to patent respectively, - - -	{	Webster, -	-	11. 19.
		Hill, -	-	1987.
— at what period generally profitable to inventor, -	{	Webster, -	-	11. 63.
		Roberts, -	-	1309.
		Cubitt, -	-	1534.
		Woodcroft, -	-	1739.
		Hill, -	-	2027.
		Westhead, M. P.	-	2649.
		Webster, -	-	35. 104.
		Carpmael, -	-	150. 204.
		Hodge, -	-	542.
		Wyatt, -	-	674.
		Campin, -	-	754.
		Spence, -	-	898.
		Newton, -	-	1028. 1041.
— their beneficial result, - - - - -	{	Woodcroft, -	-	1631. 1642.
		Cole, -	-	1858.
		Hill, -	-	1988. 2674.
		Prosser, -	-	2346. 2350.
		Sir D. Brewster, -	-	2465.
		Rendel, -	-	2569.
		Westhead, M. P.	-	2626.
		May, -	-	2764.
— the granting of, not to be dependent on time and money expended, - - - - -	{	Webster, -	-	45.
		Roberts, -	-	1346.
		Webster, -	-	46.
		Wyatt, -	-	669.
		Campin, -	-	735. 751.
		Spence, -	-	898.
— principle of, - - - - -	{	Newton, -	-	1048. 1073.
		Cole, -	-	1851.
		Prosser, -	-	2358.
		Lloyd, -	-	2692.
		Webster, -	-	61.
		Carpmael, -	-	152.
		Hodge, -	-	523. 560.
		Macfie, -	-	993. 1007.
		Newton, -	-	1035.
		Fairbairn, -	-	1138.
		Roberts, -	-	1277. 1334.
		Fothergill, -	-	1486.
— a stimulus to inventors, - - - - -	{	Cubitt, -	-	1531.
		Woodcroft, -	-	1628.
		Cole, -	-	1865.
		Hill, -	-	1989.
		Mercer, -	-	2073.
		Rendel, -	-	2538.
		Westhead, M. P.	-	2613. 2633.
		May, -	-	2763.
		Webster, -	-	30. 95.
		Carpmael, -	-	421.
		Campin, -	-	721.
		Spence, -	-	867.
		Fairbairn, -	-	1116.
— proposed cost for, - - - - -	{	Roberts, -	-	1341.
		Hale, -	-	1405.
		Fothergill, -	-	1489.
		Woodcroft, -	-	1648.
		Mercer, -	-	2071.
		Rendel, -	-	2549.
		Westhead, M. P.	-	2568.
— for appointments, - - - - -	{	Webster, -	-	117.
— stages for opposition, - - - - -	{	Carpmael, -	-	132.
		Carpmael, -	-	137. 155. 403.
		Spence, -	-	877.
— if cheap, likely to be pernicious, - - - - -	{	Fairrie, -	-	918. 948.
		Fairbairn, -	-	1117. 1156.
		Woodcroft, -	-	1685.
— obtain in all countries of Europe, - - - - -	{	Carpmael, -	-	188.
(a) except Switzerland, - - - - -	{	Prevost, -	-	2086.
— when combining different process, Attorney-general to have discretionary power, - - - - -	{	Carpmael, -	-	361.
— time occupied in completing, - - - - -	{	Carpmael, -	-	370.

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PATENTS, cases showing the necessity for, - - -	{ Webster, - - 68.
— not obstructive to future inventions, - - -	{ Hodge, - - 546.
— periodical payments for, objected to, and reasons, -	{ Newton, - - 1022.
— to be granted in all cases of novelty, - . -	{ Hodge, - - 563.
— purchase of, for purpose of monopoly, - - -	{ Campin, - - 690. 718. 758.
— to be more easily obtainable, - - - -	{ Spence, - - 859.
— what questions in, to be decided by court of law, -	{ Newton, - - 1074.
— law of, as respects the three kingdoms, when not	{ Brunel, - - 1806.
published at the same date, - - - -	{ Hodge, - - 576. 626.
French process, in case of infringement, recommended,	{ Campin, - - 724.
— their abolition recommended, - - - -	{ Fothergill, - - 1473.
— their effect on the price of articles, - - -	{ Cubitt, - - 1532.
— why inoperative in cases of infringement, - -	{ Woodcroft, - - 1647.
— to be granted in all cases, subject to conditions,	{ Sir D. Brewster, 2430.
— fraudulent practices of opponents to, how to be met,	{ Hodge, - - 594.
— probable effect, if abolished, - - - -	{ Hale, - - 1414.
— licenses for, considered, - - - -	{ Brunel, - - 1784.
— in case of inventor and improver, how to be met,	{ Hill, - - 1996.
— advantage of, questionable, - - - -	{ Solicitor-general, 2825.
— obstructive to improvements, - - - -	{ Duncan, - - 793. 817.
— their value, or otherwise, dependent on state of science	{ Fairbairn, - - 1120. 1169.
and civilization, - - - -	{ Roberts, - - 1285. 1322.
— <i>à contra</i> , - - - -	{ Fothergill, - - 1489.
— their duration considered, - - - -	{ Mercer, - - 2071.
— total number of, and number in force, - - -	{ Sir D. Brewster, 2426.
— their injurious effects both to public and inventor,	{ Duncan, - - 796. 818.
exemplified, - - - -	{ Spence, - - 848.
— their effect on new inventions, - - - -	{ Fairbairn, - - 1180.
— particulars, how far to be published after applica-	{ Fothergill, - - 1446. 1454.
tion, - - - -	{ Woodcroft, - - 1655. 1710.
— in case of litigation, bias of juries generally for pa-	{ Prosser, - - 2314. 2398.
tentee, and against pirate; not so, as between pa-	{ Duncan, - - 827.
tentee and public, - - - -	{ Fairrie, - - 925. 950.
— inference from number of renewals of, - - -	{ Macfie, - - 982. 1002.
	{ Cubitt, - - 1547.
	{ Brunel, - - 1775. 1835.
	{ Prevost, - - 2104. 2141.
	{ Reid, - - 2266. 2290.
	{ Lloyd, - - 2691. 2716.
	{ Fairrie, - - 967.
	{ Fairbairn, - - 1192.
	{ Roberts, - - 1267. 1325.
	{ Cole, - - 1874. 1888.
	{ Prosser, - - 2310. 2393.
	{ Sir D. Brewster, 2426. 2435.
	{ Roberts, - - 1330.
	{ Woodcroft, - - 1707.
	{ Roberts, - - 1357.
	{ Woodcroft, - - 1636.
	{ Hale, - - 1418.
	{ Prosser, - - 2369.
	{ Fothergill, - - 1467.
	{ Hill, - - 1994.
	{ Cubitt, - - 1516.
	{ Prevost, - - 2142.
	{ Reid, - - 2273.
	{ Lloyd, - - 2691.
	{ Cubitt, - - 1536.
	{ Brunel, - - 1774. 1795.
	{ Lloyd, - - 2695. 2716.
	{ Cubitt, - - 1545.
	{ Reid, - - 2277.
	{ Lloyd, - - 2700.
	{ Hill, - - 1993.
	{ Woodcroft, - - 1738.
	{ Woodcroft, - - 1763.
	{ Brunel, - - 1773.
	{ Lloyd, - - 2695. 2716.
	{ Master of the Rolls, 2828.
	{ Brunel, - - 1775.
	{ Hill, - - 1968.
	{ Hill, - - 2011.
	{ Prosser, - - 2416.

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Name of Witness and Number of Question.

PATENTS, not vitiated by previous discovery, when not made public, - - - - -	Sir D. Brewster, 2446.
— indefinite multiplication of, not likely to be injurious, {	Duncan, - - 819.
— for previous inventions, doubtful, - - - - -	Sir D. Brewster, 2456. 2483.
— to lapse, if payments not paid up, - - - - -	Sir D. Brewster, 2473. 2485.
— limitation of persons interested in, not to be confined to 12 only, - - - - -	Rendel, - - 2537.
— after application made, publication of invention not to vitiate right to complete patent, - - - - -	Hill, - - 2670.
— to be unimpeachable after certain period, - - - - -	Hill, - - 2683.
— proceedings for, to be of two kinds, - - - - -	Hill, - - 2688.
— after grant of, their validity to be tried in court of law, - - - - -	Master of the Rolls, 2804.
PATENT AGENTS, practices of, - - - - -	Master of the Rolls, 2816.
— necessary under present system, - - - - -	Hodge, - - 482.
PATENT CASES, why generally tried in London, - - - - -	Spence, - - 886.
PATENT LAW AMENDMENT (No. 3) BILL, its provisions explained, - - - - -	Fothergill, - - 1452.
PATENTEE, to lodge instrument or copy in Dublin, Edinburgh and London, - - - - -	Prosser, - - 2319.
PLEAS, what, necessary in case of infringement, - - - - -	Master of the Rolls, 2805.
PREVOST, JOHN LEWIS, Esquire, Consul-general for Switzerland, Evidence of, - - - - -	Prosser, - - 2334.
PRINCIPLES, not patentable, - - - - -	Webster, - - 2357.
PRIVY COUNCIL, question of renewals by, considered, - - - - -	Webster, - - 2783.
PRIVY SEAL, its inutility, - - - - -	Master of the Rolls, 2788.
PROPELLING, number of patents for, - - - - -	Solicitor-general, 2798.
PROSSER, Mr. RICHARD, Civil Engineer, Evidence of, - - - - -	Sir D. Brewster, - 2476.
PROVISIONAL PROTECTION, important for poorer class of inventors, - - - - -	Webster, - - 1621.
PROVISIONAL SPECIFICATION, difficult of definition, - - - - -	Rendel, - - 2557.
PRUSSIA, system in, respecting patents, - - - - -	Woodcroft, - - 1676.
— constitution of Board for patents, - - - - -	Cole, - - 1879.
— granted free of cost, - - - - -	Hill, - - 2039.
— advertised in State Gazette, - - - - -	Lloyd, - - 2712.
— specifications not accessible to public - - - - -	Woodcroft, - - 1733.
— yearly index of titles made, - - - - -	Webster, - - 25.
— proportion of grants to applications, - - - - -	Carpmael, - - 146.
— process in case of infringement, - - - - -	Woodcroft, - - 1746.
PUBLIC, inadequately protected against patentee, - - - - -	Webster, - - 43. 54.
— <i>à contra</i> , - - - - -	Hodge, - - 523.
	Campin, - - 766.
	Spence, - - 905.
	Fothergill, - - 1478.
	Cubitt, - - 1527.
	Woodcroft, - - 1632.
	Cole, - - 1847.
	Hill, - - 1942. 1988.
	Rendel, - - 2569.
	Master of the Rolls, 2805.
	Master of the Rolls, 2793.
	Weddinge, - - 2146. 2228.
	Weddinge, - - 2160. 2193.
	Weddinge, - - 2167. 2190.
	Weddinge, - - 2175.
	Weddinge, - - 2176.
	Weddinge, - - 2178.
	Weddinge, - - 2185.
	Weddinge, - - 2195. 2243.
	Webster, - - 2.
	Hill, - - 1995. 2004.
	Lloyd, - - 2703.
	Woodcroft, - - 1723.
	May, - - 2751. 2762.

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REGISTRATION OF DESIGNS ACT, its repeal advocated in case of new patent law, - - - - -	Newton, - - -	1099.
REID, Lieutenant-colonel, R. E., Evidence of, - - - - -	- - -	2259.
RENDEL, JAMES MEADOWS, Esquire, Civil Engineer, Evidence of, - - - - -	- - -	2521.
ROBERTS, RICHARD, Esquire, Civil Engineer, Evidence of, - - - - -	- - -	1236.
ROMILLY, The Right Honourable Sir JOHN, M. P., Master of the Rolls, Evidence of, - - - - -	- - -	2785.
RUSSIA, advantages derived by, from imported inventions, - - -	Sir D. Brewster,	2479.

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SCOTCH PATENTS, proceedings in, compared with English, - - -	Carpmael, - - -	218.
SCOTCH JUDGES, in patent cases, guided by decisions of English Judges, - - - - -	Campin, - - -	698.
SPECIFICATIONS, how enrolled, - - - - -	Webster, - - -	4. 22.
— not according to any specified form, - - - - -	Campin, - - -	780.
— to be perfected before protection granted, - - - - -	Carpmael, - - -	310.
— estimated cost of printing, - - - - -	Spence, - - -	895.
	Fairbairn, - - -	1122. 1171.
	Master of the Rolls,	2811.
	Woodcroft, - - -	1766.
<i>See PATENTS.</i>		

SPENCE, WILLIAM, Esquire, Patent Agent, Evidence of, - - - - -	- - -	839.
SPINNING MACHINERY. <i>See CARDING.</i>		

STREAM ENGINE, number of patents obtained for, - - - - -	Webster, - - -	57.
— Watt's, effect of patent law on, - - - - -	Woodcroft, - - -	1563.
— early discovery of, - - - - -	Webster, - - -	63.
	Cubitt, - - -	1521.
	Woodcroft, - - -	1750.
SUGAR MACHINE, West Indies, facts relating to, - - - - -	Carpmael, - - -	242.
	Fairrie, - - -	963.
	Reid, - - -	2269.
SUGAR-BEFINING. inventions in, - - - - -	Fairrie, - - -	928. 937.
— useless patents for, - - - - -	Fairrie, - - -	953.
— charges paid for use of Howard's patent, - - - - -	Fairrie, - - -	967.
	Macfie, - - -	980.
	Reid, - - -	2269.
SWITZERLAND, absence of patent laws in, - - - - -	Prevost, - - -	2086.
— inference from, as to the inutility of patents, - - - - -	Prevost, - - -	2115.
— rule respecting foreign patents in, - - - - -	Prevost, - - -	2119.

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USELESS INVENTIONS, why not detrimental to the public, - - - - -	Newton, - - -	1093.
	Fairbairn, - - -	1155.
	Fothergill, - - -	1504.
	Sir D. Brewster,	2483.

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WEBSTER, THOMAS, Esquire, Barrister-at-Law, Evidence of, - - - - -	- - -	1. 102. 781.
WEDDINGE, WILLIAM, Esquire, Member of the Prussian Patent Commission, Evidence of, - - - - -	- - -	2781.
WESTHEAD, JOSHUA PROCTER BROWN, Esquire, M. P., Chairman of the Inventors' Association for Amendment of the Patent Laws, Evidence of, - - - - -	- - -	2144.
WOLOWSKI, Monsieur LOUIS, Professor at the Conservatoire des Arts et Métiers, &c., Evidence of, - - - - -	- - -	2560.
	- - -	2493.

General Heads.	Name of Witness and Number of Question.
WOOD, Sir WILLIAM PAGE, M. P., Her Majesty's Solicitor- general, Evidence of, - - - - -	2785.
WOODCROFT, BENNET, Esquire, Professor of Machinery in University College, Evidence of, - - - - -	1558. 1687.
	Webster, - - 55.
	Hodge, - - 477. 518.
	Fairrie, - - 952.
WORKMEN, inventions made by, compared with those made by men of science, - - - - -	Fairbairn, - - 1150. 1201.
	Pothergill, - - 1492.
	Brunel, - - 1780.
	Mercer, - - 2071.
	May, - - 2775.
WYATT, RICHARD HENRY, Esquire, Secretary to United In- ventors' Association, Evidence of, - - - - -	660.



